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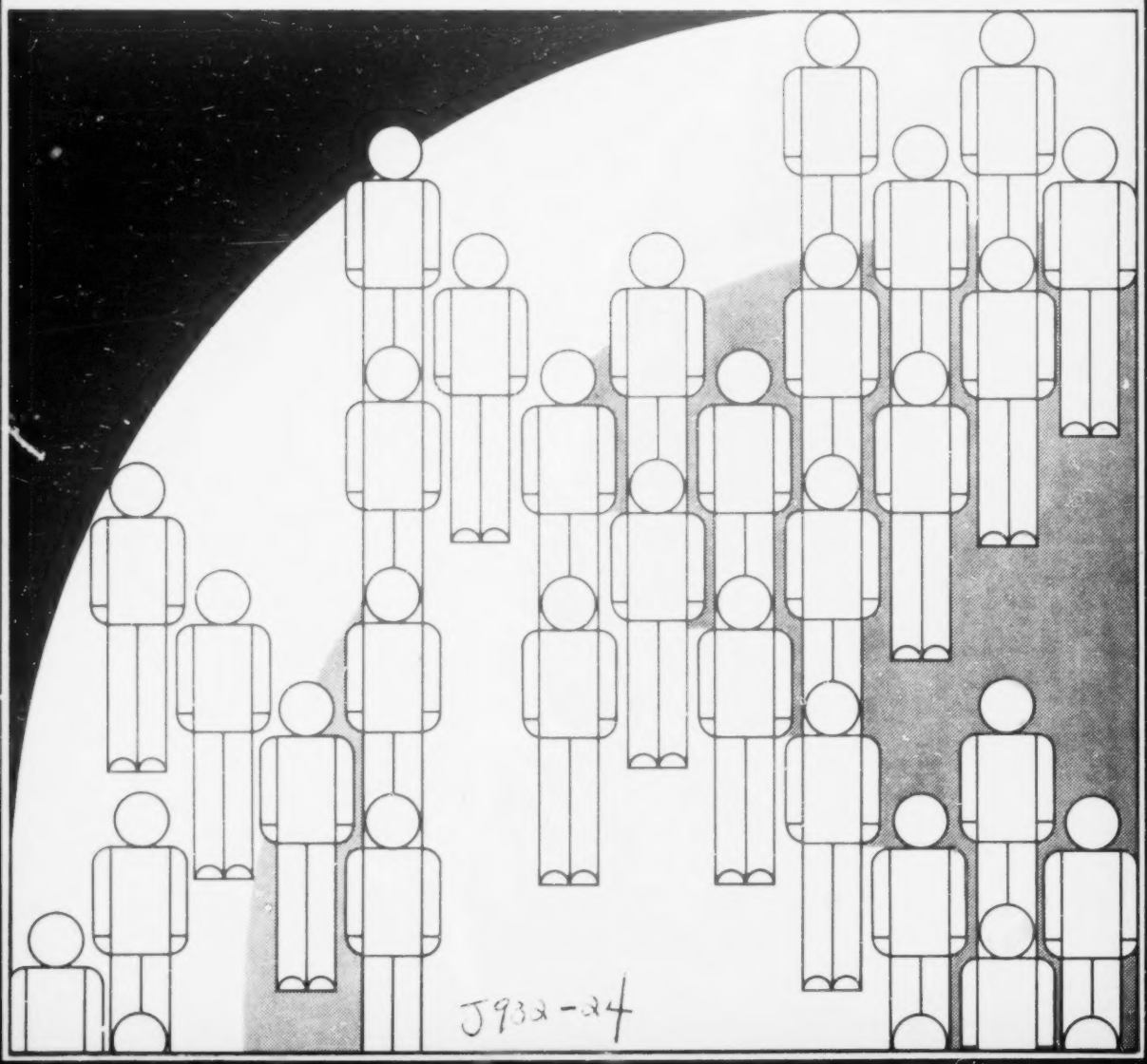
Federal Insurance of Private Pension Benefits



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CBO STUDY

FEDERAL INSURANCE OF PRIVATE PENSION BENEFITS

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Congressional Budget Office

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NOTES

Unless otherwise stated, all years referred to in this paper are fiscal years.

Details in the text and tables of this paper may not add to totals because of rounding.

PREFACE

As part of a broader effort to protect and enhance workers' pension benefits, the Congress in 1974 created a federal program of private pension insurance to be operated by the Pension Benefit Guaranty Corporation. This program has incurred some large claims in recent years, raising questions about several aspects of its operation and about its future financial status. This paper was prepared by the Congressional Budget Office (CBO) at the request of the Subcommittee on Oversight of the House Committee on Ways and Means. It analyzes the pension insurance program and considers issues affecting its future direction. Options that address these issues also are examined. In accordance with CBO's mandate to provide objective and impartial analysis, this paper contains no recommendations.

Bruce Vavrichek of the CBO's Human Resources and Community Development Division wrote the report, under the direction of Nancy M. Gordon and Martin D. Levine. Marianne Deignan, formerly of CBO's Budget Analysis Division, made major contributions throughout the project. In addition, many people provided valuable contributions, including Emily S. Andrews, John F. Hirschmann, Richard A. Ippolito, David Lindeman, Marilyn Moon, Alicia H. Munnell, Larry Ozanne, and Michael F. Pogue. Sherry Snyder edited the manuscript. Norma A. Leake typed the several drafts and prepared the paper for publication.

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October 1987

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SUMMARY

In 1974, as part of a broader effort to protect participants in private pension plans, the Congress created a federal program of pension insurance to be operated by the Pension Benefit Guaranty Corporation (PBGC). The purpose of this agency is to ensure that workers receive certain retirement benefits promised by their employer, if their pension plan is terminated with insufficient assets to pay for these benefits.

Almost from the start, the pension insurance program for single-employer plans has had financial difficulties, and the PBGC itself has accumulated a large and growing deficit. In recent years, the Congress has responded to these and related issues by making changes in pension policies generally and by modifying the pension insurance program in particular. With the near tripling of the program's accumulated deficit during 1986 to $3.8 billion, however, concern has been expressed that additional changes are needed to assure the program's financial viability.

FEDERAL INSURANCE OF PRIVATE PENSION BENEFITS

Employers need not provide pensions for their workers, but if they do, the federal government requires them to follow rules relating to most major aspects of the plan's operation. In particular, an employer who sponsors a so-called defined-benefit pension plan--one that promises a specified annual pension benefit in retirement rather than simply providing contributions to workers' retirement accounts--is required to contribute at least a minimum annual amount to that plan as benefit commitments accrue. Annual payments must be sufficient to cover the normal cost of benefits accrued by workers in that year, as well as a portion of other liabilities that usually can be amortized over periods of 15 years or 30 years.

Even if they satisfy all legal funding obligations, pension plans can be underfunded if they terminate, largely because of the time involved in amortizing certain liabilities. These liabilities include obligations that result when pension benefits are granted for service before the plan began, and when the plan is amended to increase or extend benefits. They can also arise from unexpected changes in other factors, such as the early retirement of large numbers of workers or the poor investment performance of the plan's assets.

While the federal government does not restrict the termination of sufficiently funded pensions, those with funding shortfalls can be terminated only if the sponsor of the plan is in bankruptcy proceedings or generally would be unable to pay its debts without the termination. Once an underfunded plan is terminated, the PBGC takes over all of its assets, assumes liability for all guaranteed benefits, and attempts to recover any remaining liability of the sponsor. Since 1975, almost 75,000 single-employer defined-benefit pensions have terminated, with about 1,345 of those--or less than 2 percent--containing some unfunded benefits that were then taken over by the PBGC. Funds to pay for this insurance protection are derived from an annual premium of $8.50 for each pension participant, plus resources from terminated underfunded plans and their sponsors.

Because guaranteed benefits are limited in a number of ways, benefits paid by the PBGC to participants in terminated underfunded plans can be less than the amount they would have received had their plan not terminated. Only benefits vested before the plan is terminated are guaranteed by the PBGC, for example, and those benefits are not fully guaranteed unless they have been a part of the pension agreement for at least five years. Maximum guaranteed monthly benefits are limited to an indexed amount that is currently $1,858 for a life annuity beginning at the normal retirement age. The guarantee also applies to the nominal dollar benefit of the plan. Benefits are not protected against inflation that occurs either between the years the plan terminated and the workers retired, or after retirement.

The Financial Status of the PBGC

By the end of 1986, the PBGC had accumulated a deficit of $3.8 billion, largely because a few severely underfunded pension plans had terminated in 1985 and 1986 (see Summary Table 1). 1/ This shortfall is the difference between assets of about $3.6 billion and the present value of liabilities of

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1. The "accumulated deficit" of the program refers to the unfunded portion of the PBGC's liabilities that have been generated since the program began in 1974, and not to the annual change in this shortfall.

   Part of this deficit is now being contested in Bankruptcy Court and U.S. District Court. On September 22, 1987, the PBGC notified the LTV Corporation that it was restoring to that company three large underfunded pension plans that previously had been terminated and placed under the trusteeship of the PBGC. If successful, this action would reduce the PBGC's accumulated deficit by about $2 billion.

SUMMARY TABLE 1. THE FINANCIAL STATUS OF THE PBGC
(In millions of dollars)

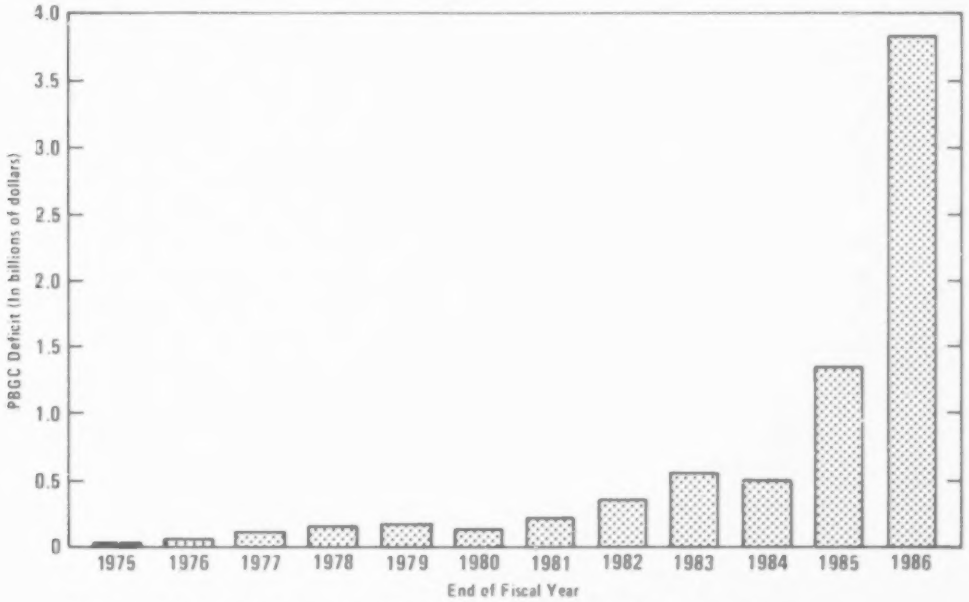
	1985	1986
Program Experience During 1985 and 1986		
Premium Income	82	201
Investment and Other Income	129	262
Benefits Paid	170	261
Number of Participants Receiving Benefits	74,800	90,750
Number of Underfunded Plans Terminated	77	103
Annual Addition to the Accumulated Program Deficit	863	2,501
Cumulative Program Experience, 1974-1986		
Number of Underfunded Plans Terminated	1,345	
Number of Participants Owed Current or Future Benefits	355,000	
Assets	3,600	
Liabilities	7,400	
Accumulated Program Deficit	3,800	

SOURCE: Congressional Budget Office using data from Pension Benefit Guaranty Corporation, *Annual Report*, 1986.

about $7.4 billion. The present value of liabilities represents the amount of money that would be needed today to purchase annuities sufficient to pay, when due, all current and future benefits for which the PBGC has already accepted responsibility. Annual additions to the accumulated program deficit were about $860 million in 1985 and $2.5 billion in 1986. As displayed in the Summary Figure, this accumulated deficit has grown during all but two years since the program began.

A large part of the dollar value of claims against the PBGC has been made by a very small number of plans (see Summary Table 2). For example, of the 1,345 underfunded pension plans terminating since 1975, the eight plans with the largest levels of unfunded benefits accounted for about two-thirds of the dollar value of all claims. Fully 87 percent of claims for unfunded benefits were made by the 3 percent of all terminating underfunded plans with the largest unfunded liabilities. Moreover, terminated pensions in the steel industry alone amounted to about 80 percent of all claims.

Summary Figure.
Accumulated Deficit of the Pension Benefit Guaranty Corporation, 1975–1986



SOURCE: Congressional Budget Office using data from Pension Benefit Guaranty Corporation, *Annual Report*, various years.

Prospects for the PBGC's Financial Status

The future financial condition of the pension insurance program is highly uncertain because it will depend largely on how many private pension plans terminate and on the amount of underfunding in those plans. Both factors are hard to forecast accurately. Moreover, a few pension plans with extremely large unfunded liabilities have dominated PBGC's past claims, and its future may likewise depend significantly on the fate of a few large plans,

SUMMARY TABLE 2. DISTRIBUTION OF NET CLAIMS AGAINST THE PBGC, FISCAL YEARS 1975-1986

Category of Claim (By size of claim, in millions of current dollars)	Number of Plans Making Claims	Net Claims in Category	
		In millions of current dollars	As a percentage of total net claims
Greater than 100	8	2,636	68
50-100	1	55	1
25-50	12	416	11
10-25	19	295	8
5-10	22	159	4
1-5	107	228	6
Less than 1	1,176	111	3
Total	1,345	3,900	100

SOURCE: Congressional Budget Office calculations based on data from Pension Benefit Guaranty Corporation, *Annual Report*, 1986.

NOTE: Data reflect the amount of the claim on the date the pension plan was terminated.

making liabilities even more difficult to predict. Future terminations will probably be influenced by overall economic conditions, by the prosperity of particular industries, by competition from abroad, and by a variety of factors that are specific to particular firms--such as their competitive position in the industry, their agreements with labor groups, and the assessments of their financial prospects that are necessary for them to obtain credit.

Using the historical experience of the PBGC as an indicator of future claims, for example, the annual premium would need to rise to roughly $25 per participant in 1988 if premium revenue alone was used to finance the program's operation. This calculation assumes that the accumulated deficit will be repaid over the next 15 years, and that both the premium and future claims will grow with average wages. Because of the large degree of uncertainty in predicting future insurance claims, however, reasonable estimates of the PBGC's future revenue needs can vary widely. Ignoring potential future claims, the existing accumulated deficit of $3.8 billion could be repaid with a one-time charge of about $120 per insured participant.

CURRENT ISSUES

The accelerated decline in the PBGC's financial position has focused concern on several issues, including whether or not the program needs corrective actions, the types of benefits that should be insured, and who should pay for the insurance protection.

Are Changes in the Pension Insurance Program Needed?

Changes in the pension insurance program may or may not be needed, depending on how its past experiences are interpreted and on how its financial prospects are assessed.

Recent financial problems may be symptomatic of difficulties in pension policies generally and in the design of the insurance program in particular. For instance, funding rules for pensions may be inadequate to ensure that plans will be sufficiently funded. Moreover, the existing premium structure does not necessarily promote the full funding of pensions. Financial difficulties for the PBGC may also continue if the degree of structural change in the economy does not lessen appreciably in future years, and if the economic conditions that gave rise to the termination of underfunded pensions in the past continue to exist.

On the other hand, little or no change in the program may be required. One cause of the PBGC's difficulties has been the unusually hard economic times faced by firms in certain declining industries, and the severity of these dislocations may not persist in the future. Moreover, because claims against the PBGC have stemmed in large part from the financial problems of only a very few pension plans, current difficulties do not necessarily represent a broader trend for the future. Finally, the tremendous uncertainty about the future financial condition of the agency, combined with the fact that it does not now have immediate unmet cash needs, might argue for delaying any changes until it is absolutely clear that they are needed.

What Types of Benefits Should be Insured?

Proposals also have been made to reconsider the nature of the insurance protection provided by the PBGC. In particular, one issue is whether the government should continue to insure pension benefits that have not been fully funded at least at some time in the past, usually because certain pension costs were amortized over several years. The basic argument for denying insurance protection for underfunded benefits is that insuring them goes well beyond the traditional protection provided by government in other areas, such as in insuring bank deposits. Yet the government's own rules are often the source of underfunding. Current federal rules and accepted actuarial principles allow sponsors to spread their pension costs over many years, thereby raising the likelihood that the PBGC will be called on to pay for some of these benefits.

Who Should Pay for Insurance Protection?

With recent growth in the cost of pension insurance--from $1 per participant in the original legislation in 1974, to $2.60 in 1978, and to $8.50 today--and with the prospect of considerably higher insurance premiums in the future, the issue of who should pay them becomes an increasingly important one.

The costs of pension insurance could be allocated in several ways. One method would continue to distribute costs equally among participants in all defined-benefit pension plans. This approach spreads program costs widely, but it includes many plans that have little likelihood of making a claim. Alternatively, insurance costs could be targeted on plans that are more likely to make a claim against the PBGC. This allocation would tie premium payments more closely to anticipated costs and would provide an incentive for participants and sponsors to raise the funding levels in their plans. It also could worsen the financial condition of sponsors of underfunded plans,

however, thereby potentially making it more likely that those plans would be terminated and that claims would be made against the PBGC. Finally, costs could be distributed more broadly, possibly even to all taxpayers through the use of federal general revenue. Plans that continue in operation thus would be insulated from any financial difficulties caused by terminated plans, but this method might also be an inappropriate use of general tax revenue because only a portion of the population will ever benefit from private pensions.

PCLICY ALTERNATIVES

A variety of options are available that would address the issues just discussed. Some options would reallocate costs among sponsors of plans. Others would alter existing rules about the funding of pensions and the termination of underfunded plans. Most of these options would indirectly improve the financial status of the PBGC, in some cases substantially. Alternatively, or in addition, changes could be made to raise revenue or reduce outlays directly.

Options for Reallocating Program Costs

One concern is that the annual premium paid on behalf of participants in plans is the same regardless of the insurance risk posed by their plans. Instead, a so-called variable-rate premium structure could be used, in which the premium charged on behalf of participants would vary among plans according to some measure of the risk that each plan represents to the PBGC.

If a variable-rate premium structure were adopted, it would have to include a basis for assessing premiums and might also specify maximum or minimum premiums to be charged. The assessment of the premium could be based on the level of unfunded benefits in the plan that are guaranteed by the PBGC (called the "exposure" of the PBGC for that plan), on the risk that the plan will terminate with a claim against the PBGC, or on both.

An upper limit, or cap, on the annual premium per participant would lessen the chances that the cost of the insurance itself would lead to financial difficulties for the sponsor or to termination of the plan. At the same time, however, it would limit the extent to which the insurance costs were allocated according to exposure or risk. A minimum premium that is greater than zero would allow certain program costs to be shared by participants in all covered plans, but might also somewhat lessen the incentive for sponsors to fund their plans fully.

The premiums could be configured in a number of ways, depending on the extent to which costs are to be risk-related and on the desired amount of revenue from the premium. As an alternative, however, sponsors could be required to obtain insurance in private markets.

Options for Reducing Underfunding or the Termination of Underfunded Plans

By its very nature, insurance of private pension benefits increases the likelihood that pensions will be underfunded and that underfunded plans will be terminated. To limit these effects, changes could be made in the methods currently used to fund pensions and in the treatment of certain benefits.

Increase Minimum Annual Pension Contributions by Sponsors. Increasing annual pension contributions by sponsors would be one way to increase directly the level of pension funding throughout the lives of the plans. One approach would be to tie pension contributions directly to the level of the plan's funding, calculated as if the plan were to terminate today, thereby requiring larger contributions by sponsors of underfunded plans. Alternatively, or in addition, amortization periods for supplemental pension costs could be shortened.

More rapid funding of pension obligations could increase the likelihood that the assets of pension plans would be available to pay promised benefits, while the added pension contributions generally would not come at a time when the sponsors were in severe financial difficulty. Requiring higher pension contributions, however, might lead to slower wage growth for the sponsors' employees and could discourage the use of defined-benefit plans.

Further Restrict Waivers of Minimum Funding Obligations. Under current law, sponsors in financial difficulty can request from the Internal Revenue Service (IRS) a waiver of their annual pension contribution. Recent changes in this law generally allow the IRS to require security on any waived amounts. Further statutory restrictions on the conditions of the waivers could increase the funding levels in some pension plans, but also might worsen the financial position of the sponsor and increase the likelihood of the future termination of the plan.

Reduce Insurance Protection for Certain Benefits Derived from Layoffs or Plant Closings. Reducing insurance protection for extra pension benefits derived solely from layoffs or plant closings could limit the extent to which these benefits result in claims against the PBGC. Although sizable portions

of these benefits are not insured, they can lead to higher claims either because a portion of them is insured or because they are paid to participants--in lump sums, for example--before the plan is terminated, thereby reducing the funds that remain to pay guaranteed benefits later. The PBGC estimates that, in the steel industry, roughly $1 billion in unfunded claims has resulted from these benefits, although there is little data on the inclusion of these benefits in pension agreements.

This restriction could lead to less reliance on this type of pension benefit, thereby reducing claims against the PBGC. On the other hand, these benefits may be necessary to protect the income security of some workers who lose their jobs. Moreover, the benefits may make affected workers more willing to accept overall economic change--thereby potentially improving the adaptability of the economy, which would ultimately benefit everyone.

Options for Directly Raising Revenues or Reducing Outlays

If direct changes in the financial status of the PBGC are desired, several options are available, including raising the insurance premium, increasing receipts from other sources, and reducing outlays for benefits.

Increase the Insurance Premium. Program revenue could be increased directly by raising the insurance premium charged on behalf of participants. Each $1 increase in the PBGC premium in 1988, for example, would generate about $30 million in revenue. Raising the premium could be accomplished with a one-time increase or by indexing the premium to changes in an indicator, such as average wages in the economy or the level of claims against the PBGC. This increase could be made either with the current rate structure or in conjunction with a change to a variable-rate structure.

Raising revenues by increasing the premium would help to restore solvency to the program by using the mechanism originally designed to provide program funds. On the other hand, large increases in pension premiums could discourage the future use of defined-benefit pensions, with a possible reduction in the income security of affected workers.

Increase Other Receipts. Revenue could also be increased in other ways, including imposing a one-time charge on pension participants, raising the priority of the PBGC's claim in bankruptcy proceedings on the assets of sponsors of terminated underfunded plans, or using federal general revenues to pay part of the debts of the PBGC. Using alternative sources of funds

could satisfy the need for increased revenue without discouraging the continued use of defined-benefit pensions. On the other hand, these options would also divert funds from other, potentially more productive uses to benefit certain workers, many of whom have above-average incomes.

Reduce Outlays for Benefits. Reducing benefits for new claimants would also directly improve the PBGC's financial situation. Expenditures could be reduced by lowering benefit protection across the board, by lowering the maximum benefit guaranteed by the program, or by reducing insurance coverage for particular types of benefits. Reducing benefit protection for new claims to 85 percent of the present guarantee could lower insured claims against the PBGC by an average annual amount of between $50 million and $100 million, for example, using past claims as an indicator of future claims. Reducing the maximum guaranteed benefit from the current $1,858 per month could have a much smaller impact, because it appears that relatively few claimants reach that cap. Finally, the effect of reducing insurance coverage for certain pension benefits would depend on the prevalence of those benefits in plans that terminated with claims against the PBGC.

One argument for these limitations is that workers who will benefit from the program's protection should share directly in the costs of restoring its financial stability. On the other hand, reductions in benefits are contrary to the government's promise to protect earned pension benefits, and future claimants would be treated differently from those whose underfunded plans have already terminated.

CHAPTER I

INTRODUCTION

In recent decades, employer-sponsored pensions have become an increasingly common component of compensation for workers. Together with private health insurance, life insurance, and employee leave, pension plans and these other fringe benefits have nearly doubled since 1950 as a share of total payroll in the private sector. The share of wage and salary workers covered by private pensions has grown from 22 percent in 1950 to nearly 50 percent in 1984. Employers' contributions to private pension plans have increased in constant 1984 dollars from $9 billion in 1950 to $69 billion in 1984. As a result, pensions are now an important and growing source of income for retired workers and their families.

Unlike most other fringe benefits, pension benefits generally are not received by workers until many years after they are earned. Furthermore, in plans known as defined-benefit pension plans--which promise a given level of benefits in retirement based on a worker's tenure and earnings with the firm, and which cover the majority of workers with pensions today--employers can spread out over several years into the future the contributions necessary to pay for certain types of promised benefits. Consequently, for a significant share of pension participants, the receipt of pension benefits in retirement depends in part on the future economic status of their employers.

Concern about the receipt of promised pension benefits led to the creation in 1974 of a federal pension insurance program as part of the Employee Retirement Income Security Act (ERISA). ERISA specified minimum standards that pension plans must meet regarding participation, accrual of benefits, vesting, and funding. Along with it, the Congress created the Pension Benefit Guaranty Corporation (PBGC) to insure pension beneficiaries against the loss of promised benefits if their plan is terminated without adequate funding. Today, the PBGC insures the pension benefits of over

30 million workers, and it has assumed responsibility for paying the pension benefits of about 355,000 workers whose plans terminated without sufficient funds to pay all insured benefits. 1/

The financial status of the federal pension insurance program has deteriorated throughout most of its life, however, and the PBGC has now accumulated a large and growing deficit. This shortfall of funds to pay future benefits has been increased markedly by the recent terminations of a few large pension plans that have transferred substantial unfunded liabilities to the PBGC. 2/ Assets held by the PBGC now represent less than one-half of the present value of its liabilities to participants in terminated underfunded plans. Some legislative changes recently have been made in the program, but these changes may not be enough to alter its long-term financial trend.

The difficulties of the PBGC have raised questions about its future financial status and about how the program influences the funding of private pensions. Concerns also have been raised about the potential effects of the PBGC's problems on the incomes of retirees with federally insured pensions and on the federal budget. This study examines one type of pension plan--the defined-benefit plan sponsored by single employers--because the funding and insurance of such plans are the focus of policy concern today.

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1. These figures are for the insurance program for private pensions sponsored by single employers. See Chapter II for a discussion of single-employer and multiemployer pension plans.

2. Part of these transfers are now being contested in Bankruptcy Court and U.S. District Court. If successful, this action could reduce the PBGC's accumulated deficit by about one-half. See Chapter IV.

CHAPTER II

THE STRUCTURE OF PRIVATE PENSIONS

Pension plans use a vast array of benefit and financing alternatives, although many are built around a few basic structures. Variations among plans often reflect the differing needs of employers and workers in different industries and situations. This chapter provides a brief summary of the structure of private pensions today.

THE BASICS OF PRIVATE PENSIONS

Private pensions enable employers to contribute directly to the retirement income of their workers. 1/ Employers need not provide these pensions, but if they do the federal government requires that the plans satisfy several conditions relating to participation, accrual of benefits, vesting, and funding. To qualify for favorable treatment under federal tax laws, which most plans do, so-called qualified plans also must provide benefits to a representative cross-section of workers. 2/

Pensions as a Form of Compensation for Workers

Under normal income tax rules, if a worker deposits earnings in a savings account, both those earnings and the investment income they generate are included in taxable income. The tax treatment of contributions to qualified private pensions is different, however, and allows retirement income to accumulate at a rate that is often considerably greater than that which

1. In this analysis, the terms "plan's sponsor" and "employer" are used interchangeably. Both refer to the entity that provides the pension to its workers.

2. This chapter relies heavily on information presented in Dan M. McGill, *Fundamentals of Private Pensions*, 5th ed. (Homewood, Ill.: Richard D. Irwin, Inc., 1984). For more information on tax treatment and other aspects of various sources of savings for retirement, see Congressional Budget Office, *Tax Policy for Pensions and Other Retirement Saving* (April 1987).

workers could achieve otherwise, for two reasons. First, contributions by employers to qualified plans are not included in the taxable income of workers until benefits are received, which usually occurs many years later. Second, investment income from these assets also is not taxed until it is distributed. 3/

Given the financial advantages of this form of compensation, many pension plans include features that are particularly desirable to certain types of workers and employers. For example, plans may be structured to reward workers who stay with the same employer for several years, by providing benefits that increase with gains in both job tenure and annual earnings. Many of these plans also target benefit payments toward longer-term employees by withholding vesting of the employer's contributions until several years of service have been completed. 4/ Such provisions reward workers who have stable employment histories and aid employers who have invested heavily in developing the skills of their work force. Other plans conform to alternative work environments where jobs with particular employers are short-lived but employment within the industry is more stable. In the construction and trucking industries, for example, pensions cover workers employed by any of several firms in the same industry and geographic region.

Types of Private Pensions

Pension plans are distinguished along two dimensions. The first divides plans into those that provide a prescribed level of benefits in retirement, called defined-benefit plans, and those to whom the employer simply contributes a given amount of money each year, regardless of the level of benefits that ultimately result, called defined-contribution plans. The other distinction is between plans sponsored by one employer (known as single-employer plans) and those plans that are collectively bargained and offered jointly by several employers, called multiemployer plans.

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3. Employers are allowed to treat contributions to qualified pension plans as a business expense at the time they are made. Contributions to some nonqualified deferred compensation plans, on the other hand, cannot be deducted until the workers receive the deferred compensation. See Congressional Budget Office, *Tax Policy for Pensions*, Appendix B.

4. Pension benefits are said to be vested if the worker has a right to those benefits even if he or she ceases to be employed by the plan's sponsor before retiring.

Defined-Benefit and Defined-Contribution Plans. A major determinant of whether the employer or the worker accepts the risks of pension funding is whether the employer guarantees a given pension benefit in retirement or simply contributes a fixed annual amount toward retirement. In a defined-benefit plan, the employer agrees to contribute whatever funds are necessary to provide a specified pension benefit to workers during each year of retirement. 5/ Employers' contributions can vary according to economic and demographic conditions affecting the plan. For instance, if the investment performance of the assets already contributed by the employer is below expectation, or if other aspects of the plan's experience result in unexpectedly high costs, then the employer is responsible for the funding shortfall. If experience is better than expected, then the employer can reduce future contributions.

Defined-contribution pension plans, however, do not prescribe a benefit level in retirement. Instead, benefits depend only on contributions and their rate of return. The employer's obligation is limited to providing the agreed-upon pension contribution, regardless of future economic conditions and of the resulting level of retirement benefits for the worker.

Although there are fewer defined-benefit plans than defined-contribution plans, the former include many more participants and contain the greatest share of pension assets. In 1981, nearly 70 percent of pension plans were defined-contribution plans, but 64 percent of participants were in defined-benefit plans. Almost 71 percent of pension assets were in defined-benefit plans in that year. 6/

From the standpoint of the federal pension insurance program, only defined-benefit plans are relevant since the obligations of employers for other plans are fulfilled when they make contributions. With defined-benefit plans, the obligations of employers are not completed until benefits are paid or until annuity contracts are purchased for participants.

Single-Employer and Multiemployer Plans. Pension plans are also divided between those operated for the employees of one firm, and those that are

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5. Reductions in the purchasing power of this benefit caused by inflation usually are not fully compensated for by employers, however.

6. For these and other statistics on pension plans, see Richard A. Ippolito and Walter W. Kolodrubetz, eds., *The Handbook of Pension Statistics 1985* (Chicago, Ill.: Commerce Clearing House, Inc., January 1986), pp. 440-441.

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collectively bargained and maintained for employees in more than one firm. 7/ From the viewpoint of pension insurance, the main distinction between these types of plans is in the liability of a given employer for retirement benefits of workers. With single-employer defined-benefit plans, that liability rests with the one employer; under multiemployer plans, the liability is allocated among the worker's former employers, often in a complicated manner. 8/

The federal government insures both single-employer and multiemployer pensions, but the issues relating to these insurance programs are quite different. While single firms may fall on hard times and go out of business, for example, this is less likely to happen to groups of firms. Thus, while termination of a pension plan is a large issue for the insurance of single-employer pensions, issues concerning insurance of multiemployer plans are more concerned with the allocation of liabilities as firms enter and leave the participating group. The remainder of this analysis focuses on defined-benefit pension plans operated by single employers.

DETERMINANTS OF THE PENSION LIABILITIES OF EMPLOYERS

The financial liability of an employer to workers in its pension plan is determined primarily by the plan's eligibility conditions and benefit provisions. 9/

Eligibility Conditions

Eligibility rules for private pensions include requirements for participation and coverage, and the conditions under which earned benefits are vested.

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7. Multiemployer plans are collectively bargained pension agreements between a union and a group of employers; all other plans, including non-collectively bargained ones involving more than one employer, are categorized as single-employer plans.

8. Single-employer plans dominate multiemployer ones in terms of the number of plans, the number of participants, and the level of plan assets. In 1981, single-employer plans accounted for more than 99 percent of all plans, nearly 85 percent of plan participants, and over 90 percent of pension assets.

9. The descriptions in this section are intended to illustrate some of the dominant characteristics of private pensions today and may not be accurate characterizations of some plans. For more detailed descriptions of several specific plans, see Bankers Trust Company, *Corporate Pension Plan Study: A Guide for the 1980's* (New York: Bankers Trust Company, 1980). For information on the shares of employees covered by various features of pension plans, see Bureau of Labor Statistics, *Employee Benefits in Medium and Large Firms, 1985*, Bulletin 2262 (July 1986).

Participation and Coverage. Federal rules designed to ensure the widespread availability of pension benefits to workers in firms that maintain pensions require that qualified plans satisfy minimum standards for participation and coverage. Under provisions of the Employee Retirement Income Security Act (ERISA), pension plans cannot exclude from participation workers of the type covered by the plan who are at least 21 years old and have completed one year of at least half-time service, for example. Further, to achieve tax-qualified status, a plan also must meet one of several conditions on coverage: the plan must cover at least 70 percent of all non-highly compensated workers, for example, or it must cover a "fair" cross-section of workers, or meet other conditions. 10/

Vesting. Qualified pension plans also must meet minimum standards for vesting. These rules are designed to ensure that workers participating in a pension ultimately receive benefits whether or not they continue to work for the same employer until they retire. As a result of the Tax Reform Act of 1986, two options for vesting generally will be available to all plans beginning in 1989: either workers must have a nonforfeitable right to 100 percent of accrued benefits after five years of service, or their accrued benefits must vest in a graded fashion, rising from 20 percent after three years to 100 percent after seven years.

Under rules in effect until 1989, pension benefits need not vest as rapidly. The most common rule in use today--applicable to about 85 percent of full-time participants in defined-benefit plans in medium and large firms--is to vest 100 percent of accrued benefits after 10 years of service. Many other participants are subject to graded vesting, which occurs between 5 years and 15 years of service. 11/

Benefit Provisions

Benefit provisions include the formulas that relate benefits to past employment and wages, the relationship between the pension benefits and Social Security, the age and service requirements to receive normal or early retirement benefits, and, at least implicitly, the effects of inflation on the real value of pension benefits.

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10. See Congressional Budget Office, *Tax Policy for Pensions*, Appendix B. If the employer has more than one plan, then those plans together must satisfy one of these conditions.

11. See Bureau of Labor Statistics, *Employee Benefits*, p. 69, which defines medium and large firms as those with at least 100 or 250 employees, depending on the industry they are in.

Benefit Formulas. Private pension benefits generally are available as a life annuity or as a joint (husband and wife) and survivor annuity, with the annuity either purchased at retirement from a life insurance company or paid directly out of the assets of the pension fund. Formulas that determine benefit payments range from relatively simple allocations in which workers are promised specific dollar amounts of annual retirement income for each year of service, to more involved schemes relating annual retirement benefits to years of service and earnings. About 30 percent of full-time pension participants in medium and large firms in 1985 had their benefits calculated as a flat dollar amount for each year of service. For about 57 percent of participants, benefits were determined by both years of service and earnings during the last few years of work; an additional 13 percent had benefit formulas related both to length of service and earnings during their entire career. 12/

An example of the accrual of pension benefits illustrates the potentially strong interaction between job tenure and earnings in determining retirement benefits. The formula illustrated in Figure 1 calculates annual pension benefits in a typical fashion as one and one-half percent of the number of years of service multiplied by the worker's average salary during the last five years of employment. For this example, the hypothetical worker is assumed to begin employment earning $15,000 per year, with those earnings growing at 6 percent annually. After 10 years of employment, the worker would be eligible for annual retirement benefits of about $3,400; after 20 years, those benefits increase to over $12,000 per year; after 30 years of employment, they reach nearly $33,000. 13/

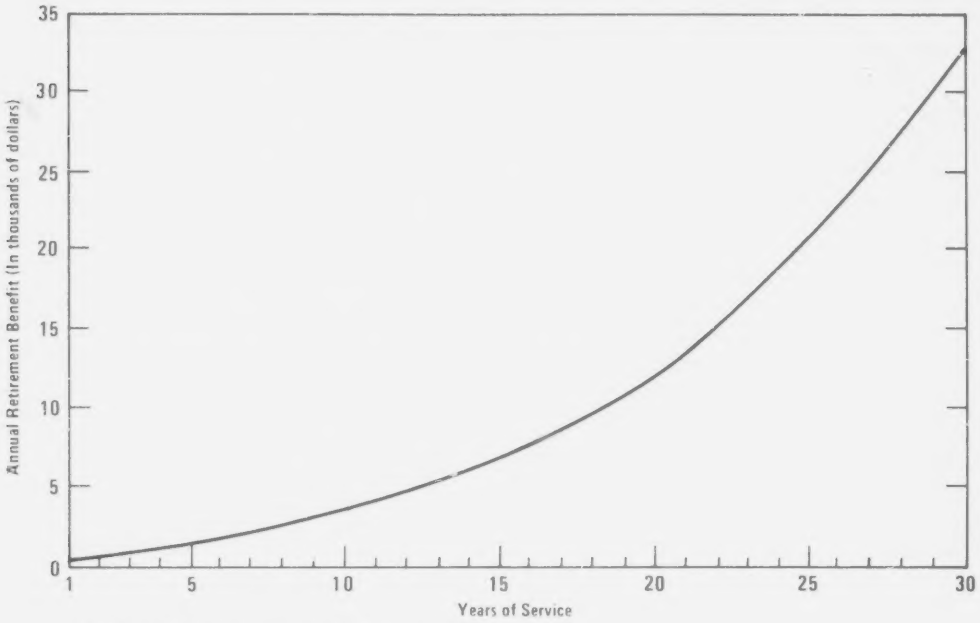
In this example, the increase in annual retirement income resulting from an additional year of service reflects not only that additional service but also the accompanying rise in wages. This more-than-proportional increase in pension benefits for each year of service can complicate the calculation of annual pension contributions by the sponsor and is one of the reasons why actuaries have developed intricate schemes for determining the amounts of funding needed to pay for future benefits.

Integration of Social Security and Pension Benefits. Although qualified pensions must not discriminate in favor of employees who are highly compensated, they are allowed to consider Social Security benefits when calcu-

12. See Bureau of Labor Statistics, *Employee Benefits*, p. 56.

13. For comparison, earnings in the thirtieth year of employment under this scenario would have been about $81,000.

Figure 1.
An Example of the Accrual of Annual Pension Benefits



SOURCE: Congressional Budget Office calculations.

NOTE: Hypothetical annual pension benefit based on years of service and earnings.

lating pension benefits. Indeed, many pension plans that relate benefits to the worker's earnings also reduce those benefits by a portion of the worker's Social Security benefit. The particular method used to reduce pension benefits varies: some plans reduce them by a portion of the Social Security benefit, while others apply higher pension accrual rates to earnings above certain thresholds related to the Social Security tax base. In 1985, about 85 percent of pension participants in medium and large firms whose benefits depended on earnings were in plans that integrated those benefits with Social Security.

The Internal Revenue Service has long restricted the extent to which private pensions can be integrated with Social Security, however, and the Tax Reform Act of 1986 makes further limitations beginning in 1989. Although the new provisions are complicated, one typical limitation is that private pension benefits cannot be reduced because of Social Security to less than 50 percent of what they would have been without this integration. 14/

14. See Congressional Budget Office, *Tax Policy for Pensions*, Appendix B.

One common explanation for the reallocation of private pension benefits to higher-wage workers is that both Social Security and private pensions are components of total retirement income, and that the availability of Social Security benefits reduces the amount of private pension benefits needed for retirees to reach a given standard of living. Furthermore, since the Social Security program replaces a higher share of prior wages for lower-wage workers, the fact that integrated private pensions favor higher-income workers can result in all workers receiving more similar total rates of wage replacement. 15/

Normal and Early Retirement. Like Social Security, private pensions generally set minimum ages for normal and early retirement for participants. The normal age of retirement in most plans is either 65 with no minimum service requirement, or 60 or 62 with at least 10 years of service. 16/ Early retirement benefits usually are first available at age 55 if the worker has been employed by the firm for at least 10 years. Unlike Social Security, however, where early retirement benefits are reduced actuarially to compensate for the longer expected duration of receipt, private pension benefits for some early retirees are reduced only slightly from the amount available at normal retirement.

Effects of Inflation on Real Benefit Levels. Because pension benefits are stated in nominal dollars, inflation occurring both before and after a worker retires can have an important impact on the real value of those benefits. In some cases, this impact is partially offset by amendments to the plan that raise benefits based on past service. In addition, some other sources of retirement income, such as Social Security, are adjusted for inflation.

Inflation that occurs before workers retire can reduce real pension benefits in two ways. First, if accrued pension benefits for a given year of employment are a flat dollar amount, or if they are determined by nominal earnings in that year, then--without amendments to the pension agreement--the real value of that benefit at retirement will be reduced by inflation that occurs in the intervening years. Second, even if benefits are tied to wages earned in the last few years of employment, thereby accounting for price changes as well as productivity increases and other gains that occur while the worker is employed by the plan's sponsor, real benefits can be eroded if the worker ceases employment with the sponsoring firm before beginning to receive retirement benefits.

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15. See Alicia H. Munnell, *The Economics of Private Pensions* (Washington, D.C.: Brookings Institution, 1982), p. 14.

16. See Bureau of Labor Statistics, *Employee Benefits*, pp. 63-64.

Real pension benefits also can decline in the years after a worker starts to receive retirement benefits. This occurs in plans that do not provide cost-of-living adjustments to retirees. Only some plans provide such adjustments, and very few do so automatically. According to one survey, for example, nearly 60 percent of current pension participants were in plans that did not provide cost-of-living adjustments for retirees between 1980 and 1984 when prices rose by about 25 percent. Only about 4 percent of participants were in plans that automatically adjusted retirement benefits for inflation. 17/

FINANCING METHODS

Most private pension benefits are paid for directly by contributions from employers. The federal government generally prohibits qualified pensions from being funded on a pay-as-you-go basis, in which pension contributions would only meet current benefit payments to retirees. Instead, sponsors must make contributions that anticipate the accrual of benefits of workers in accord with an acceptable funding method, thus creating a fund for the payment of future retirement benefits. The accrual of pension benefits can be complicated, however, because of the potentially complex relationship between benefits and job tenure or earnings, and because some components of benefits, such as cost-of-living adjustments, may not be tied to particular years of covered employment. Thus, determining the appropriate annual pension contribution can be quite difficult.

This section explores three aspects of the financing of defined-benefit pensions:

- Evaluating pension costs for employers;
- Legal requirements for pension contributions by employers; and
- Factors influencing the financial status of pension plans.

Evaluating Pension Costs for Employers

The cost to an employer of a worker's pension depends primarily on the annual retirement benefit and on the number of years that benefits will be paid. The timing of future benefit payments also influences the employer's cost: the farther in the future that benefit payments occur, the more time

17. See Bureau of Labor Statistics, *Employee Benefits*, pp. 54 and 67; and Bankers Trust Company, *Corporate Pension Plan Study*.

there is for current pension contributions to generate investment income, and the smaller is the necessary contribution. Sponsors therefore measure their current pension liabilities as the amount of money needed today, plus accumulated interest, to pay current and future benefits (known as the discounted present value).

At any point during a worker's career, there can be considerable uncertainty about the ultimate pension cost for the employer. This uncertainty is the result of imprecise knowledge about the worker's future employment, wages, and longevity; uncertain future rates of return on pension assets; and other factors.

Determining the appropriate pension cost for a given year of employment can be even more complicated. Uncertainties about future events are compounded in some plans because, as demonstrated above in Figure 1, pension benefits attributable to a given year of work sometimes depend on wages or employment in other years as well. Thus, calculating pension costs in the same manner as benefits accrue could result in widely different costs for different years of employment. In the example in Figure 1, accrued benefits grow more than proportionally with either job tenure or earnings separately, and the annual pension accruals in years immediately preceding retirement are especially large.

Thus, pension sponsors use so-called actuarial funding methods to allocate pension costs to particular years. The purpose of these funding methods is to smooth out pension costs over the work-lives of employees. Contributions in excess of benefit accruals might be made on behalf of workers in the early years of employment, thereby allowing annual contributions in later years to be less than the annual increase in accrued benefits.

Legal Requirements for Pension Contributions by Employers

Federal laws impose minimum standards on annual contributions to most private pension plans. 18/ Given that a sponsor uses an allowable actuarial funding method to allocate pension costs, rules of both ERISA and the IRS require the employer to make contributions in each year for two types of pension costs--the "normal" cost of the pension in that year, plus a fraction

18. The federal government also sets upper limits on annual pension contributions, so as to limit the reduction in taxable income that the employer can achieve through this expense. See McGill, *Fundamentals of Private Pensions*, p. 371.

of other "supplemental" liabilities attributable to certain factors. 19/ The normal cost is that portion of pension obligations that is attributable to a worker's service in a given year, and is the cost determined by the actuarial funding method used by the plan.

Employers are allowed to amortize the other type of pension costs, termed the "supplemental liabilities" of the plan. These costs include:

- Additions to benefits provided by the granting of credits for past service. These benefits often are provided by new or replacement pension plans for service before the plan began.

- Liabilities created by amendments to the plan. These added costs are the result of changes in existing pension agreements, such as ad hoc cost-of-living adjustments in benefits.

- Gains or losses resulting from changes in actuarial assumptions or from adjustments made to reflect the actual experience of the pension plan.

- Changes in the pension liability of a plan that is integrated with Social Security, when the changes are attributable to modifications in Social Security benefits or covered wages.

The time period over which these costs can be amortized depends on when the liability was incurred and on the nature of the change. Actuarial liabilities that existed before 1974 can be amortized over 40 years. Most other changes arising thereafter can be amortized over 30 years; changes resulting from variations in the experience of the plan can be amortized over 15 years.

Under federal rules, each pension plan is required to maintain a special account, called a funding standard account, that provides a cumulative comparison between actual contributions and those required to pay normal and supplemental costs. If contributions to the plan exactly meet federal minimum standards, then the account balance is zero. Plans with negative balances--indicating contributions less than the required minimum--are assessed an excise tax on the account deficiency, with the rate of that tax

19. Employers are allowed to use any of six actuarial funding methods to allocate pension costs. In reporting pension expenses on their financial statements, however, the accounting community soon will allow the use of only one of these methods--the projected unit credit method. See Financial Accounting Standards Board, *Statement of Financial Accounting Standards No. 87: Employers' Accounting for Pensions* (Stamford, Conn.: FASB, December 1985).

rising sharply over time if the balance is not reduced. 20/ Positive balances in this account can be used to reduce future pension contributions.

Under certain conditions, a sponsor can receive from the IRS a waiver of its minimum funding obligation, thereby allowing it to spread a given annual payment over 15 years. This waiver can be obtained if payment of the pension obligation would cause the employer a substantial business hardship, or if enforcement of the minimum funding requirement would not be in the best interest of pension participants. 21/ In 1986, the IRS was given explicit authority to require security on waived pension contributions. This feature is designed to ensure that while the timing of the pension contribution may be delayed, the pension plan ultimately will receive the required contribution.

Factors Influencing the Financial Status of Pension Plans

The financial status of a pension plan (also called its funding status) is determined by comparing the plan's assets with the present value of its current and expected future costs of benefits. In 1986, private pensions managed by a trustee held 44 percent of their assets in equities, 24 percent in government and corporate bonds, 13 percent in cash items, and 20 percent in other assets. 22/

The value of a plan's liabilities, and therefore its overall funding status, can be determined either by assuming that the plan will continue in operation into the future, or by assuming that it will terminate today (the method known as termination valuation). Unless the pension is scheduled to terminate, the actuarial funding method used by the plan to allocate pension

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20. The excise tax, which is deposited in the U.S. Treasury, initially is 5 percent of the account deficiency and rises to 100 percent if the deficiency is not paid off within a limited period. See McGill, *Fundamentals of Private Pensions*, p. 376.

21. The factors that are taken into account in determining business hardship include whether or not (1) the employer is operating at an economic loss, (2) there is substantial unemployment or underemployment in the trade or business and in the industry concerned, (3) the sales and profits of the industry are depressed or declining, and (4) it is reasonable to expect that the plan will be continued only if the waiver is granted. Unfortunately, few data are available on the amounts of waivers granted in past years or on the circumstances surrounding those waivers.

22. Cash items include demand deposits, short-term credit market instruments, and certificates of deposit. Other assets include real estate, mortgages, receivables, and other financial and nonfinancial assets. Pooled funds are reported under all four asset categories according to their reported asset allocations. See Employee Benefit Research Institute, *EBRI Quarterly Pension Investment Report*, Fourth Quarter 1986 (April 1987), p. 79.

costs to particular years includes expected future costs as a component of total plan costs. The termination valuation, on the other hand, calculates liabilities assuming the plan will not continue to operate. Under this method, no account is taken of potential future salary increases or of additional years of service by participants. All workers' benefit rights are assumed to vest immediately, and all future retirements are assumed to occur at the plan's expected retirement age. 23/ This calculation forms the basis for determining the sponsor's liability to the pension plan if it is terminated. 24/

Questions about the funding levels of pension plans are usually more relevant to termination valuations than to calculations that assume the plan will continue in operation. If a sponsor has made all required contributions--implying, therefore, that the plan's funding standard account has a nonnegative balance--then the plan generally is on schedule to meet its ultimate financial obligations. This does not mean, however, that if the plan is terminated, there would be sufficient assets on hand to cover liabilities accrued to date. For this determination, the termination valuation of the plan would be used.

Pensions can meet legal funding obligations and still be underfunded on a termination basis, for a number of reasons. Most of these reasons relate to the creation of supplemental liabilities, as discussed above, and include obligations arising from the granting of credits for past service, liabilities created by plan amendments, and actuarial losses resulting from the economic and demographic experiences of the plan. Because these supplemental liabilities can be amortized over periods of up to 15 to 30 years, a plan can be underfunded on a termination basis in the interim.

Actuarial funding methods, which smooth out pension contributions over a worker's period of employment, can work in the opposite direction, however, reducing a plan's underfunding or increasing its overfunding. Employers' contributions in the early years of service that exceed benefit accruals can generate asset levels in the plan that are larger than its termination liability, even if these contributions are consistent with overall funding of the pension.

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23. According to ERISA, all previously nonvested accrued benefits become vested immediately upon termination of the plan. While benefits vested solely because of the termination are a liability of the plan's sponsor, they are not guaranteed by the pension insurance program, as discussed in the next chapter.

24. The termination liability of a pension plan may be larger or smaller than the ongoing liability. The result depends on how the added cost associated with the vesting of benefits that might otherwise have been forfeited compares with reductions in cost resulting from the elimination of early retirement and of future increases in salary and tenure.

CHAPTER III

FEDERAL INSURANCE OF BENEFITS IN SINGLE-EMPLOYER DEFINED-BENEFIT PENSION PLANS

As part of a broader effort to protect and enhance workers' pension benefits, the Congress in 1974 created a federal program of mandatory pension insurance to be operated by the Pension Benefit Guaranty Corporation (PBGC). The purpose of this agency within the Department of Labor is to insure participants in defined-benefit private pension plans against the loss of certain benefits if their plans terminate without sufficient assets. 1/

The original law set up a fund to pay for this insurance protection by charging an annual premium of $1 per pension participant, and also gave the PBGC the authority to recover up to 30 percent of a plan sponsor's net worth to cover unfunded insured benefits. 2/ Plan sponsors were allowed to terminate pensions whether or not they were adequately funded so long as that termination did not violate contracts with their employees.

The financial experience of the federal pension insurance program has not been good, however, and over the years the PBGC itself has accumulated a large and growing deficit. Consider the discounted present value of pension liabilities assumed by the PBGC--that is, the amount of money needed today so that, together with the interest that would accumulate, it would be sufficient to pay current and future liabilities when due. By the

1. The PBGC operates two insurance programs for private pensions. One program is for single-employer defined-benefit plans, and the other is for collectively bargained multiemployer plans. The two programs are distinct, with separate financial structures and different operational and analytical issues. The multiemployer program is in better financial condition than the single-employer one, having a balance-sheet surplus and little prospect of deterioration in the immediate future. This analysis is restricted to the insurance program for single-employer plans, as discussed in Chapter II.

2. Pension participants include workers accruing benefits, retired workers collecting benefits, terminated workers with vested benefit rights, and deceased participants whose survivors are eligible for benefits.

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end of fiscal year 1986, these liabilities had reached $7.4 billion, while assets amounted to only about $3.6 billion. 3/

In recent months, the Congress has made a number of changes in federal pension policies, including several modifications in the pension insurance program. Effective in January 1986, the Congress increased to $8.50 the annual premium charged on behalf of participants in insured private pensions. It also tightened the conditions under which sponsors may terminate underfunded pensions and increased the potential maximum liability of sponsors for unfunded guaranteed benefits in their plans.

This chapter describes the current operation of the federal insurance programs for single-employer pension plans, including the role of the PBGC in the termination of private pensions, and the financial structure and budgetary treatment of the PBGC. The next chapter examines in more detail the financial experiences of the PBGC and discusses what is known about its potential future obligations.

PENSION PLAN TERMINATION AND THE PBGC

Termination of a pension plan ends benefit accruals by participants and eliminates further contributions by the plan's sponsor. Employers may choose whether or not to replace the terminated pension with another plan. In recent years, some employers who terminated defined-benefit plans have replaced them with defined-contribution plans, thereby limiting their liability in the new plan to current payments and making the new pension accruals more portable for workers.

Employers with pensions that are sufficiently funded on a termination basis have always been permitted by ERISA to terminate those plans. Once the PBGC determines that a plan is sufficiently funded, the sponsor simply buys annuities for--or provides lump-sum payments to--eligible participants and ceases further involvement in the plan. All benefits vested before the plan terminates must be paid by its sponsor, plus any other accrued benefits to the extent that assets of the plan are available. 4/ If, after paying all

3. Although ERISA provides that the federal government is not liable for any obligation or liability incurred by the PBGC, the agency can borrow up to $100 million from the U.S. Treasury, and some of its financial transactions are reflected in the federal budget.

4. Previously nonvested accrued pension benefits are vested immediately upon termination of the pension plan. When a sufficiently funded pension is terminated, however, sponsors are only required to pay these newly vested benefits to the extent that plan assets are available.

accrued benefits, excess funds remain in the plan, those funds may revert to the sponsor as taxable business income or be distributed among participants, depending on the plan. 5/

Before passage of the Single-Employer Pension Plan Amendments Act of 1986 (SEPPAA), employers with underfunded plans also were able to terminate those plans by agreeing to pay the PBGC up to 30 percent of their net worth toward unfunded guaranteed benefits. 6/ Under SEPPAA, however, these employers now can terminate underfunded plans only under more limited conditions regarding their financial status. A sponsor must meet at least one of the following criteria to qualify for a so-called "distress termination" of an underfunded plan. The sponsor must:

- Be in bankruptcy liquidation;
- Be in bankruptcy reorganization with court approval of the termination;
- Be unable to pay debts when due or to continue in business without the plan's termination; or
- Face unreasonably burdensome pension costs attributable solely to a declining work force. 7/

Thus, the Congress has changed the "insured event" in pension benefit insurance from simple termination of the plan, which in many cases is under the direct control of the plan's sponsor, to bankruptcy or severe financial distress of the plan's sponsor.

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5. Effective in 1986, sponsors also must pay an excise tax of 10 percent of any assets that revert to them. Between 1980 and 1986, there were 1,338 terminations of pension plans that resulted in reversions of $1 million or more each. The total dollar amount of these reversions was nearly $16 billion. For a discussion of these so-called asset reversions by sponsors see, for example, Richard A. Ippolito, *Pensions, Economics and Public Policy*, (Homewood, Ill.: Dow Jones-Irwin, for the Pension Research Council, 1986); and General Accounting Office, *Pension Plans: Government Data on Terminations with Excess Assets Should be Improved* (November 1986).

6. This act is Title XI of the Consolidated Omnibus Budget Reconciliation Act of 1985, Public Law 99-272.

7. With court approval, the PBGC also can initiate the involuntary termination of a plan if the plan is unable to pay benefits when due, if the sponsor has failed to satisfy the minimum funding requirements, or if certain other conditions exist.

Once the PBGC determines that an underfunded plan qualifies for a distress termination, the agency becomes trustee of that plan. The PBGC takes over all assets in the plan, assumes liability for all insured benefits, and begins making monthly payments to the plan's beneficiaries. Federally insured benefits are defined by statute and by the PBGC to consist of all normal retirement benefits that are payable in level monthly installments for the remaining life of the participant, so long as he or she was vested before the plan terminated, plus any death, survivor, or disability benefits that were in payment status when the plan terminated. This definition excludes lump-sum benefits and supplemental monthly benefits designed to encourage early retirement; it also excludes benefits vested solely because the plan terminated.

Federally guaranteed benefits also are limited by ERISA in two other ways. First, benefits generally are not fully insured until they have been in effect for at least five years. Under this provision, which affects both plans created in the last five years and any modifications to previously existing plans that occurred during the last five years, only the prorated share of these newly created benefits is federally insured. 8/ Second, ERISA imposes an upper limit on the level of insured benefits for any participant. This limit is $1,858 per month in 1987 for a life annuity payable beginning at the normal retirement age in the plan and is indexed to the Social Security wage base. The limit is determined at the date of the plan's termination, regardless of when the participant actually receives benefits. The limit on monthly guaranteed benefits is reduced actuarily for workers who start to receive benefits before the normal age of retirement.

When the PBGC takes trusteeship of a terminated plan, it can also make a claim against the plan's sponsor for the unfunded guaranteed benefits. SEPPAA increased the maximum liability of the sponsor from 30 percent of the sponsor's net worth--the limit originaliy imposed by ERISA--to a potentially higher level. The new liability is for the full amount of unfunded guaranteed benefits up to 30 percent of net worth, and for 75 percent of unfunded guaranteed benefits in excess of 30 percent of net worth.

The recovery by the PBGC of assets from the plan's sponsor is determined in many instances by the nature and amounts of claims made by the sponsor's other creditors. Regardless of its success in collecting funds from the sponsor, however, the pension insurance agency continues to provide payments to all insured workers.

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8. In general, 20 percent of benefits newly granted one year before the plan was terminated are guaranteed, 40 percent of benefits newly granted two years before termination are guaranteed, and so forth.

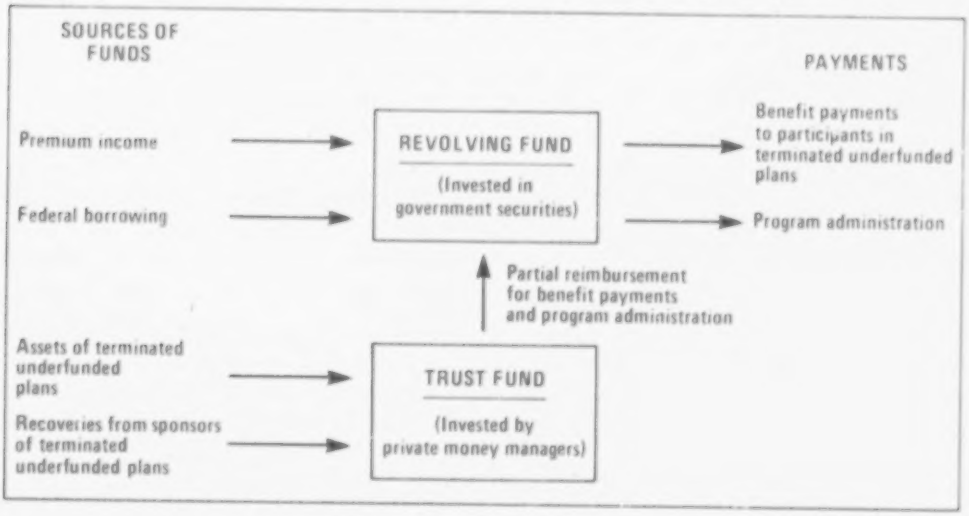
THE FINANCIAL STRUCTURE AND BUDGETARY TREATMENT OF THE PBGC

The federal pension insurance program is financed by annual premiums paid on behalf of all participants in insured plans, the assets in terminated underfunded plans, and any funds recovered from the sponsors of these plans. The annual insurance premium is $8.50 per participant, having been increased from $1.00 to $2.60 in 1978, and to $8.50 effective in January 1986. This revenue is used to pay benefits to participants in underfunded terminated plans and to finance the operation of the program.

The Financial Structure of the PBGC

As shown in Figure 2, the financial structure of the PBGC involves two funds: a revolving fund that is used to pay benefits and operating expenses and to collect premiums; and a trust fund that is used as a depository for assets from terminated underfunded plans and for funds recovered from their sponsors.

Figure 2.
Financial Structure of the Pension Benefit Guaranty Corporation



SOURCE: Congressional Budget Office

The Revolving Fund. Outlays of the pension insurance program are made from the revolving fund. In fiscal year 1986, payments of about $260 million were made from this fund to 90,750 beneficiaries of plans in trust with the PBGC. Expenses for administration of the PBGC totaled $33 million in that year.

Sources of revenue for the revolving fund include premium payments on behalf of participants in insured plans, money that is transferred from the pension insurance trust fund, investment returns on fund balances, and, potentially, a loan from the federal Treasury. Premium receipts totaled about $200 million in 1986.

Annual transfers from the insurance trust fund are determined by the funding status of the PBGC. In particular, the transfer from the trust fund to the revolving fund is equal to the same percentage of benefit payments as the program is funded. This allocation of spending between the trust fund and the revolving fund assures that some assets will remain in the trust fund to pay a portion of all future program liabilities.

The remaining source of revenue to the revolving fund is the U.S. Treasury, from which the PBGC has the authority to borrow up to $100 million. 9/ Balances in the revolving fund are invested in U.S. government securities, and investment income is retained in that fund.

The Trust Fund. The pension insurance program also operates a trust fund. As explained above, a portion of the balance in this fund is transferred to the revolving fund to pay for a share of insured benefits and program operating expenses.

Revenues to the trust fund include the assets of underfunded plans that terminate and are taken over by the PBGC, funds recovered from sponsors of these plans, and investment returns on fund balances. Trust fund balances, which totaled $3.2 billion at the end of fiscal year 1986, are held in stocks, bonds, and other investments, and are invested for the PBGC by several private investment companies.

Federal Budgetary Treatment of the PBGC

Since 1981, a portion of the financial transactions of the PBGC has been included in the federal budget. 10/ Benefit payments to participants in

9. This borrowing authority has been used only one time. In 1974, the PBGC borrowed $100,000 to pay for its start-up costs. This loan was repaid with receipts from the first premium payments from covered plans.

10. The Multiemployer Pension Plan Amendments Act of 1980 (Public Law 96-364) required that the finances of the PBGC be included in the federal budget starting with fiscal year 1981.

plans under the PBGC's trusteeship, plus administrative expenses of the PBGC, are counted as federal outlays. But certain receipts of the agency--including premium payments, interest on balances in the revolving fund, and transfers to the revolving fund from the trust fund--offset PBGC expenses in the federal budget. This "cash-flow" view of the PBGC does not take account, however, of liabilities for future benefit payments and other accruals. A more detailed look at the broader financial condition of the pension insurance agency is presented in the next chapter.

CHAPTER IV

THE FINANCIAL STATUS OF THE PBGC

Given the complex nature of private pension finance and the dynamics of industrial change in the economy, it is perhaps not surprising that pension plans occasionally terminate with insufficient funds to pay all of their accrued benefits. For reasons such as the granting of credits for past service, amendments to plans increasing or extending benefits, and unexpected events such as poor investment performance, some plans that satisfy all legal funding obligations before termination are underfunded. In addition, firms in financial distress might request from the Internal Revenue Service a waiver of their required pension contribution for a given year, thereby potentially adding to any existing funding problems of their plan.

In the decade or so since the federal pension insurance program was begun, only a small fraction of terminated plans have been underfunded, but the claims against the PBGC for unfunded guaranteed pension benefits have grown rapidly. As a result, the agency has amassed a large and growing funding shortfall. This chapter examines the current financial position of the PBGC, explores its financial history, and considers the prospects for the future. The final chapter analyzes issues confronting the pension insurance program and considers options for dealing with them.

THE CURRENT FINANCIAL PICTURE

In the approximately 12 years of program activity through the end of fiscal year 1986, the federal pension insurance program accumulated a financial deficit of $3.8 billion. 1/ This deficit represents the difference between the program's assets of $3.6 billion and its liabilities of $7.4 billion. Assets of the PBGC represent past premium receipts and funds derived from plan terminations, less past expenses for benefit payments and administration.

1. Part of this deficit is now being contested in Bankruptcy Court and U.S. District Court. On September 22, 1987, the PBGC notified the LTV Corporation that it was restoring to that company three large underfunded pension plans that previously had been terminated and placed under the trusteeship of the PBGC. If successful, this action would reduce the PBGC's accumulated deficit by about $2 billion.

Its liabilities represent the present value of current and future guaranteed benefits owed to participants in underfunded plans that have terminated.

At the end of 1986, the pension insurance program was actually paying benefits to 90,750 participants in 1,345 plans for which it was the trustee, at a cost in that year of about $260 million. Future annuity payments also are owed to most current beneficiaries and to about 264,000 additional workers from previously terminated plans who will receive benefits in the future.

In a technical sense, the present underfunding of the pension insurance program has not caused an immediate financial problem, because most of the obligations are not payable until several years in the future. The program now has sufficient assets to make annuity payments for at least the next few years. Indeed, with the receipt of additional assets recovered from the future terminations of underfunded plans, and with the receipt of future premium payments, the pension insurance program could probably operate on a pay-as-you-go basis for several years, although the PBGC has not attempted to finance its payments on this basis in the past.

HISTORICAL DEVELOPMENT OF THE ACCUMULATED DEFICIT OF THE PBGC

The pension insurance program has added to its accumulated financial deficit in 10 of its 12 years of operation through 1986. 2/ Annual additions to the deficit have averaged just over $300 million during the history of the program, but have been substantially larger in recent years. In 1985 and 1986 alone, the PBGC accumulated 88 percent of its total financial shortfall, or about $3.4 billion (see Figure 3).

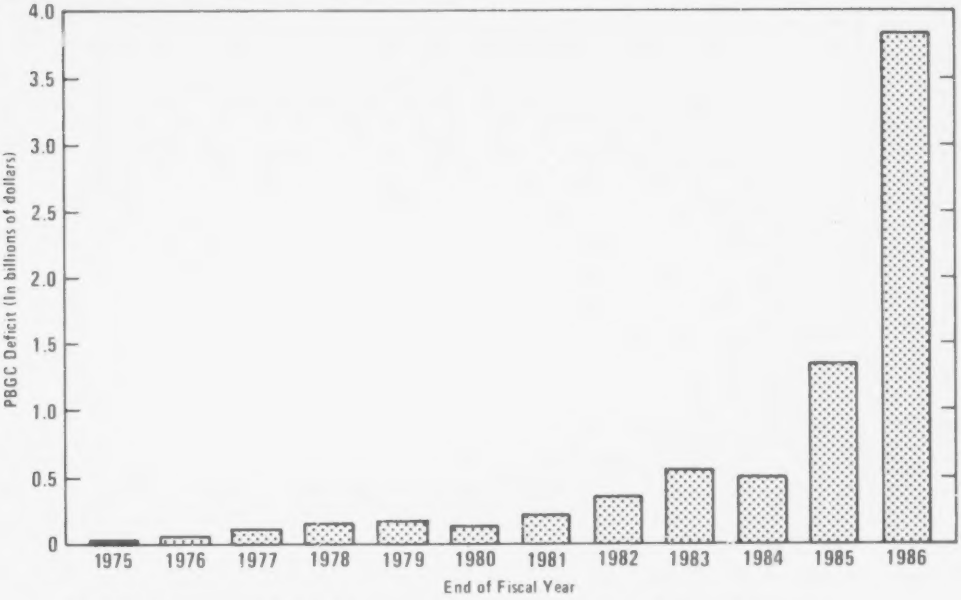
This section analyzes historical financial information on the PBGC, including past changes in its financial condition, its claims experience, and its federal budgetary history.

Past Changes in the PBGC's Financial Condition

Many factors account for the financial status of the PBGC, and changes in several of them have contributed to the decline in its financial situation (see Table 1). The largest single factor is the net new liabilities it assumed

2. Only in 1980 and 1984 did the accumulated deficit in the program fall. In those years, in addition to having relatively low net new claims, interest rates used to determine the present value of future benefit obligations were raised by one percentage point or more, resulting in relatively large reductions in the present value of existing benefit obligations.

Figure 3.
Accumulated Deficit of the Pension Benefit Guaranty Corporation, 1975—1986



SOURCE: Congressional Budget Office using data from Pension Benefit Guaranty Corporation, *Annual Report*, various years.

from terminated plans that were underfunded. The shortfall that results from these terminations is equal to the difference between the present value of guaranteed benefits in the plans and the sum of assets in the plans plus any funds recovered from their sponsors. The annual amount of this net new liability assumed by the PBGC has ranged from $26 million in 1980 to over $2.4 billion in 1986, fluctuating both with the number of terminations occurring in a given year and with the amount of underfunding in the terminating plans.

Annual changes in actuarial calculations and assumptions also have had an important impact on the agency's financial situation. Changes in the interest rate used to determine the present value of future liabilities have caused significant changes in the PBGC's financial condition. 3/ This rate--

3. The PBGC actually uses several different interest rates to calculate the present value of future benefit obligations, depending on when those obligations are payable. These rates tend to change together over time, however, so that for ease of presentation only a single rate is considered here.

TABLE 1. ACCUMULATED DEFICIT OF THE PBGC, AND COMPONENTS OF ANNUAL CHANGE, 1975 THROUGH 1986 (In millions of dollars)

Fiscal Year	Accumulated Deficit b/		Components of Change in Accumulated Deficit a/						
	End of Year	Change from Prior Year	Net New Liability c/	Source of Actuarial Charges: Interest Rate d/	Source of Actuarial Charges: Other e/	Administrative Expense	Income: Premium	Income: Investment f/	Interest Rate g/ (percent)
1975	-15.7	-15.7	n.a.	n.a.	n.a.	-2.8	18.6	n.a.	8.00
1976	-41.0	-25.3	-52.6	n.a.	0.5	-9.9	29.6	7.0	7.00
1977	-95.3	-54.3	-72.2	n.a.	-0.8	-12.0	25.1	5.7	6.75
1978	-137.8	-42.5	-63.6	n.a.	-21.9	-14.0	47.4	9.5	7.25
1979	-146.4	-8.6	-66.0	17.5	-29.5	-15.8	69.7	15.5	7.75
1980	-94.6	51.8	-26.3	43.0	-39.0	-19.8	71.2	22.3	9.00
1981	-188.8	-94.2	-140.6	51.0	-54.0	-20.6	75.0	-5.4	10.25
1982	-332.8	-144.0	-202.9	6.0	-99.0	-24.2	79.6	96.2	10.50
1983	-523.3	-190.5	-167.4	-113.8	-151.9	-27.2	81.5	188.3	9.50
1984	-462.0	61.3	-41.7	159.8	-136.6	-30.3	80.5	29.7	10.50
1985	-1,325.3	-863.3	-657.9	-196.0	-187.2	-33.2	81.7	129.3	9.25
1986	-3,826.4	-2,501.1	-2,406.7	-435.4	-88.9	-33.2	201.4	261.7	7.75

SOURCE: Congressional Budget Office using data from Pension Benefit Guaranty Corporation, *Annual Report*, various years.

NOTES: Benefit payments by the PBGC on behalf of trusteed plans reduce both its assets and liabilities, and thus have no net effect on the accumulated deficit of the program. (n.a. = not available.)

a. Positive numbers represent increases in assets or decreases in liabilities; negative numbers represent decreases in assets or increases in liabilities.

b. Equal to the market value of assets minus the present value of program liabilities.

c. The present value of guaranteed benefits of newly terminating plans, less plan assets and employer payments.

d. Actuarial charges resulting from changes in the interest rate used to calculate the present value of guaranteed future benefits.

e. Actuarial charges stemming from causes other than changes in interest rates, including increases in the present value of benefit liabilities caused by the passage of time (see text). For fiscal years 1976-1978, this column represents total actuarial charges.

f. Investment income includes realized and unrealized changes in the value of assets.

g. The interest rate used to determine the present value of immediate annuities to be paid by the PBGC; comparable changes occurred for rates used to value deferred annuities.

which has ranged from a low of 6.75 percent in 1977 to a high of 10.5 percent in 1982 and 1984, and has changed by an average of almost one percentage point each year--is determined by the PBGC based on market conditions at the time it revalues its liabilities. Because benefit liabilities are fixed in nominal terms, changes in this discount rate result in direct changes in the present value of liabilities: increases in the interest rate reduce the present value of benefit liabilities, and decreases in that rate add to liabilities. These same market conditions can also affect the market value of program assets, however, often in parallel ways. Higher interest rates generally imply lower bond prices, for example, and often are associated with lower stock prices, so that at least part of the effect of changes in the discount rate on program liabilities is sometimes offset by changes in asset values. 4/

Another change, which is completely predictable, is the annual revaluation of program liabilities resulting from the simple passage of time. Each year, the future due dates of annuity payments to beneficiaries move one year closer to the present, thereby increasing the present value of those liabilities. 5/ The impact of this change, plus changes in actuarial assumptions used in the program, has resulted in annual actuarial charges of as much as $187 million. If the PBGC had assets equal to the present value of its liabilities, then--at least in principle--this growth over time in the present value of liabilities could be offset by increases in the value of program assets derived from investment returns during the same period.

Sources of income to the PBGC include premium receipts and investment income. Gains over time in annual premium income reflect small increases in the number of covered pension participants, as well as increases in the annual premium per participant. Investment income--including interest, dividends, and other income plus realized and unrealized changes in the value of assets, as discussed above--has fluctuated rather widely over the years, along with changes in the financial markets generally. Assets of the PBGC are held in a variety of investments, including government securities, stocks, corporate bonds, and real estate.

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4. Because the dollar value of liabilities of the PBGC significantly exceeds its assets, however, even proportional changes in liabilities and assets would imply a larger change in the dollar value of liabilities than of assets. One implication of this result is that, in general, higher interest rates have tended to help the financial condition of the PBGC and lower rates have tended to hurt it.

5. Recall that the present value is the amount of money that would be needed today so that, together with the investment income it would generate, it would be sufficient to pay liabilities when they are due.

Claims Experience of the PBGC

Only a small minority of terminating plans has made claims against the PBGC for unfunded pension benefits (see Table 2). Of the nearly 75,000 plans insured by the PBGC that were terminated between 1975 and 1986, only 1,345 terminations (or about 2 percent) resulted in claims. The average claim was less than $1 million in most years of program operation, but much larger claims have become more common in recent years.

Furthermore, the bulk of the dollar value of claims against the PBGC has resulted from a very small percentage of underfunded terminations (see Table 3). Of the 1,345 underfunded plans that were terminated through the end of 1986, the eight plans with the largest claims against the PBGC account for two-thirds of the dollar value of all claims, and the top 5 percent of underfunded terminations account for over 90 percent of total claims. The concentration of claims is even greater when terminating plans are grouped by sponsor. Claims made by plans operated by the five sponsors with the largest claims account for 70 percent of the dollar value of total claims, and claims made by plans operated by the top 10 percent of sponsors account for over 95 percent of total claims.

Federal Budgetary History of the PBGC

The net financial position of the PBGC, which takes into account obligations to pay future benefits, contrasts sharply with its status in the federal budget, which uses more of a cash-flow basis for accounting. 6/ In each year between 1981 (when the program was first included in the federal budget) and 1986, the effect of the PBGC has been to reduce overall federal outlays (see Table 4). During this period, the PBGC reported receipts in excess of benefit payments and administrative costs by a cumulative total of $240 million. In years before 1981, the federal accounts for the PBGC also would have shown annual inflows to the program that exceeded expenses in each year of program operation.

FUTURE FINANCIAL STATUS

The experience of the pension insurance agency in 1985 and 1986 demonstrates what also has been true to a lesser degree in the past--that the

6. Federal budgetary figures for the PBGC used in this section include both the single-employer and the multiemployer insurance programs, although they are dominated by the single-employer one.

TABLE 2. PENSION PLAN TERMINATIONS AND THE CLAIMS EXPERIENCE OF THE PBGC, 1975-1986

Fiscal Year	Number of Terminated Plans	Claims Experience of the PBGC				
		Number of Claims Against PBGC	(In millions of dollars) Guaranteed Benefits in Plans Making Claims	Net Claims	Average Claim Per Plan	Net Claims as Percentage of Guaranteed Benefits
1975	2,568	98	56	30	0.3	53
1976	9,104	172	88	18	0.1	20
1977	7,332	130	52	23	0.2	45
1978	5,259	101	125	73	0.7	58
1979	4,890	80	81	45	0.6	56
1980	4,037	104	166	85	0.8	51
1981	5,083	134	176	73	0.5	41
1982	6,130	127	443	263	2.1	59
1983	6,861	131	416	183	1.4	44
1984	7,709	88	60	35	0.4	59
1985	8,712	77	254	177	2.3	70
1986 a/	6,932	103	5,177	2,895	b/	56
Total	74,617	1,345	7,094	3,900	b/	55

SOURCE: Congressional Budget Office using data from Pension Benefit Guaranty Corporation, *Annual Report*, various years.

a. Includes 30 plans with large claims pending at the end of 1986.

b. The average claim per terminated plan is not meaningful in 1986 because of the exclusion of certain pending terminations with net claims under $1 million.

PBGC's financial condition is being determined in large part by the behavior of the plans of a very few large sponsors. Although several thousand insured pensions terminate each year under the PBGC's supervision, with perhaps 100 plans requiring financial assistance from that agency, the liabilities derived from a small minority of plans with the largest unfunded liabilities generally represent the bulk of the claims against the PBGC.

This dominance of the PBGC's financial situation by plans with large unfunded liabilities has several implications for projecting the agency's future financial status. Although analyzing funding levels of pensions across large numbers of insured plans is useful in providing information about the

TABLE 3. DISTRIBUTION OF NET CLAIMS AGAINST THE PBGC FOR FISCAL YEARS 1975 THROUGH 1986
(Claims in millions of dollars)

Category of Claim (By size of claim, in millions of dollars)	Net Claims (By plan)		Net Claims (By plans grouped by sponsor) a/	
	Number of Plans	Total Net Claims	Number of Sponsors	Total Net Claims
Greater than 100	8	2,636	5	2,788
50-100	1	55	6	351
25-50	12	416	7	254
10-25	19	295	10	134
5-10	22	159	11	76
2-5	45	143	41	131
1-2	62	85	45	61
Less than 1	1,176	111	968	105
Total	1,345	3,900	1,093	3,900

SOURCE: Adapted by Congressional Budget Office from Pension Benefit Guaranty Corporation, *Annual Report*, 1986.

NOTE: Data reflect the amount of the claim on the date the pension plan was terminated.

a. These columns group together all plans of a sponsor that terminate within 30 days of each other.

TABLE 4. FEDERAL BUDGETARY TREATMENT OF THE PBGC, 1975-1986 (In millions of dollars)

Fiscal Year	Expenses a/	Offsetting Collections b/	Outlays Appearing in the Federal Budget c/
	Not Included in the Federal Budget d/		
1975	3.2	35.5	n.a.
1976	12.8	28.5	n.a.
1977	21.0	41.0	n.a.
1978	47.6	61.9	n.a.
1979	52.3	91.5	n.a.
1980	59.1	90.1	n.a.
Total	196.0	348.5	
	Included in the Federal Budget d/		
1981	79.4	123.1	-29.0
1982	104.3	157.0	-66.9
1983	161.2	182.4	-9.5
1984	180.0	189.8	-9.9
1985	195.3	210.4	-19.1
1986	272.1	343.9	-105.9
Total	992.3	1,206.6	-240.3

SOURCE: Congressional Budget Office using data from the appendix to the federal budget, various years.

NOTE: This table includes both the single-employer and multiemployer pension insurance programs. (n.a. = not applicable.)

a. Includes primarily administrative costs and benefit payments.

b. Includes primarily premium income, interest income, and transfers from the pension insurance trust fund to the revolving fund.

c. Outlays do not equal the difference between expenses and offsetting collections because of changes in obligated program balances between the beginning and the end of the fiscal year.

d. The PBGC was first included in the federal budget in 1981, in accordance with Public Law 96-364.

funding status of pensions generally, it is not necessarily a good predictor of the amount of unfunded liabilities that will be acquired by the PBGC. Similarly, while predicting aggregate pension terminations among a large number of small plans can be done over time with some degree of accuracy using traditional statistical techniques, predicting the termination of particular plans generally is extremely difficult. These terminations are influenced by overall economic conditions, by the prosperity of particular industries, by competition from abroad, and by a variety of factors that are specific to a particular firm, such as its competitive position in the industry, its agreements with labor groups, and the assessments of its financial prospects that are necessary for it to obtain credit. The remainder of this chapter looks at the extent of underfunding in pension plans from the perspective of the pension insurance program and considers additional sources of uncertainty in future projections.

Pension Plan Funding and Potential Insurance Liabilities

Overall, the funding position of private pensions apparently has improved in recent years, but the financial prospects for the PBGC remain highly uncertain. According to most available data, single-employer defined-benefit pension plans as a group have assets that significantly exceed the present value of accrued benefits. Nonetheless, many plans remain underfunded--some with very large financial shortfalls--and these plans represent a potentially large liability for the pension insurance agency.

From the perspective of the pension insurance program, it is important to view the financial status of pensions in a particular way. First, funding valuations must be made on a termination basis rather than on an ongoing one, because only benefits accrued by the date of termination are insured. As discussed in Chapter II, this means that a plan's obligations should be based only on service to date and should not include future benefit increases resulting from projected gains in wages or tenure. Second, benefit obligations need to be further limited to those guaranteed by the PBGC. These obligations usually can be approximated using vested accrued benefits.

The risk to the pension insurance program from the termination of an underfunded pension plan depends both on the amount of the potential liability--which, in turn, is determined by the funding status of the plan and the amount that can be recovered from the plan's sponsor--and on the probability that the plan will terminate. Of these factors, however, only the level of underfunding generally is available when analyzing pension plans, and then only very approximately. The amount of money that might be recovered from the sponsor of the plan depends on the sponsor's overall

financial situation at the time of termination and on the status of the PBGC's financial claim compared with that of other creditors. The probability that the plan will terminate, as discussed above, usually is difficult even to approximate.

To investigate the extent and distribution of pension funding, data were reviewed on single-employer defined-benefit pension plans. These data were taken from Internal Revenue Service form 5500, Annual Return/Report of Employee Benefit Plan, for plan year 1984--the most recent year for which data are available. To approximate guaranteed benefits, only vested accrued benefits were considered, and the possibility of recovering funds from the plan's sponsor in the event of termination was not explored. 7/

These data are limited in a number of ways, however. First, they relate only to plans with 100 or more participants. While this restricts the sample to a small minority of all plans, the included plans contain a major share of both participants and pension assets. In 1981, for example, plans with 100 or more participants accounted for about 90 percent of participants in all pension plans and included about 84 percent of total assets. 8/ Second, the reported value of the plan's liabilities was calculated using interest rates chosen by the sponsors. To make these rates more similar to ones used by the PBGC in determining the present value of liabilities in terminated underfunded plans, they were adjusted to a common rate that approximates the PBGC rate in that year. 9/

As displayed in Table 5, the data base included about 12,700 pension plans containing nearly 22 million participants. When taken together, pension plans in this sample had an average funding ratio (assets to liabilities) of about 140 percent, with assets equal to $378 billion and the present value of liabilities equal to about $272 billion. About 17 percent of the plans were

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7. The data base was restricted to single-employer defined-benefit plans for which information was available on plan assets, liabilities, participants, and the interest rate used to determine liabilities. For some very large plans, some of these entries were adjusted to correct for errors and omissions.

8. These statistics do not distinguish between defined-benefit plans and defined-contribution plans. See Richard A. Ippolito and Walter W. Kolodrubetz, eds., *The Handbook of Pension Statistics 1985* (Chicago, Ill.: Commerce Clearing House, Inc., January 1986), p. 438.

9. An interest rate of 9 percent was used as the common rate. For a description of an approximate method for converting reported pension liabilities to those using a common interest rate, see Richard A. Ippolito, *Pensions, Economics and Public Policy* (Homewood, Ill.: Dow Jones-Irwin, for the Pension Research Council, 1986), p. 65.

TABLE 5. CHARACTERISTICS OF PENSION PLANS IN SAMPLE, BY STATUS OF FUNDING, 1984

	Number of Plans	Number of Participants a/ (In millions)	(In billions of dollars) Plan Assets	Present Value of Plan Liabilities	Funding Status b/
All Plans in Sample					
Number	12,654	21.8	378.5	272.1	+106.4
Percent	100.0	100.0	100.0	100.0	n.a.
Underfunded Plans in Sample c/					
Number	2,176	3.7	42.3	59.2	-16.9
Percent	17.2	16.8	11.2	21.8	n.a.
Overfunded Plans in Sample c/					
Number	10,478	18.1	336.2	212.9	+123.3
Percent	82.8	83.2	88.8	78.2	n.a.

SOURCE: Congressional Budget Office calculations based on data from Internal Revenue Service form 5500, Annual Return/Report of Employee Benefit Plan (With 100 or more participants), 1984.

NOTES: Data are for a sample of single-employer defined-benefit plans with 100 or more participants. See text for details.

The interest rate used to calculate the present value of liabilities for each plan has been adjusted to a common rate that approximates the rate used in 1984 by the PBGC to value pension liabilities.

(n.a. = not applicable.)

a. Includes vested and nonvested workers, former workers eligible for current or future benefits, and deceased participants whose survivors are eligible for benefits.

b. Funding status in this column is equal to the difference between plan assets and liabilities.

c. Underfunded plans are those with liabilities in excess of assets; overfunded plans are those with assets in excess of liabilities.

underfunded in 1984. The funding shortfall totaled $16.9 billion, with assets in underfunded plans equal to about $42 billion and liabilities equal to $59 billion. Underfunded plans contained nearly 17 percent of participants in the sample.

The distribution of funding ratios of this sample of pension plans appears in Table 6. Of plans that were underfunded in 1984, the majority were at least 75 percent funded--that is, had assets equal to at least 75 percent of the present value of liabilities. Of overfunded plans, most held assets that were equal to at least 150 percent of liabilities. The distribution of pension participants by the funding category of their plans was similar to the distribution of the plans themselves.

Underfunding of pensions was concentrated among a relatively small share of all plans, however (see Table 7). Of the nearly 2,200 plans in the sample that were underfunded, the 100 plans with the largest funding shortfalls represented about 83 percent of the total--$14 billion out of $16.9 billion. Moreover, the 25 plans with the largest underfunding represented about 67 percent of total underfunding.

The results displayed in Tables 5 through 7 are broadly similar to ones derived from other studies that have done more in-depth analyses of smaller numbers of large plans. For example, in its study of pension plans with 1,000 or more participants, the Wyatt Company found that about 14 percent of plans had vested accrued benefits that exceeded the plan's assets, with the distribution of funding rates similar to that in Table 6. 10/ A recent study by Johnson and Higgins revealed that only about 8.5 percent of companies in the ranks of the Fortune 500 industrial corporations and 200 large nonindustrial companies had underfunded pension plans. 11/

An encouraging note is that annual studies performed over the last few years generally show that funding levels have increased over time. Studies by the Wyatt Company since 1979, for example, show that the percentage of plans with pension assets at least equal to the present value of vested benefits has increased each year, rising from 45 percent in 1979 to 86 percent in 1986. 12/

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10. See Wyatt Company, *1986 Survey of Actuarial Assumptions and Funding* (1987), p. 57. This study analyzed the pension characteristics of over 800 plans.

11. See Johnson and Higgins, *1985 Executive Report on Large Corporate Pension Plans* (New York, 1985), pp. 32-33.

12. See Wyatt Company, *1986 Survey of Actuarial Assumptions and Financing*, and *1985 Survey*.

TABLE 6. DISTRIBUTION OF PENSION PLANS AND PARTICIPANTS IN SAMPLE, BY FUNDING RATIO, 1984

Funding Ratio (In percents)	Percentage of Plans	Percentage of Participants a/
Underfunded Plans in Sample b/		
0 - 49	2.7	2.4
50 - 74	4.9	7.3
75 - 99	9.6	7.1
Overfunded Plans in Sample b/		
100 - 124	12.9	13.4
125 - 149	16.0	18.6
150 or above	53.9	51.3
Total	100.0	100.0

SOURCE: Congressional Budget Office calculations based on data from Internal Revenue Service form 5500, Annual Return/Report of Employee Benefit Plan (With 100 or more participants), 1984.

NOTES: Data are for a sample of single-employer defined-benefit plans with 100 or more participants. See text for details.

The interest rate used to calculate the present value of liabilities for each plan has been adjusted to a common rate that approximates the rate used in 1984 by the PBGC to value pension liabilities.

a. Includes vested and nonvested workers, former workers eligible for current or future benefits, and deceased participants whose survivors are eligible for benefits.

b. Underfunded plans are those with liabilities in excess of assets; overfunded plans are those with assets in excess of liabilities.

Additional Uncertainties in Projecting the PBGC's Future Financial Status

Uncertainty about the future financial condition of the pension insurance program stems primarily from the absence of a sound basis on which to project future terminations of underfunded plans, and secondarily from the future effects of recent federal legislation.

TABLE 7. DISTRIBUTION OF UNFUNDED PENSION LIABILITIES IN SAMPLED PLANS, 1984

Characteristic of Pension Plan	Unfunded Pension Liabilities	
	Billions of dollars	Percent
All Plans in Sample	16.9	100
Plans in Sample with the Largest Unfunded Benefits		
Top 25 plans	11.3	67
Top 100 plans	14.0	83

SOURCE: Congressional Budget Office tabulations based on data from Internal Revenue Service form 5500, Annual Return/Report of Employee Benefit Plan (With 100 or more participants), 1984.

NOTES: Data are for a sample of single-employer defined-benefit plans with 100 or more participants. See text for details.

The interest rate used to calculate the present value of liabilities for each plan has been adjusted to a common rate that approximates the rate used in 1984 by the PBGC to value pension liabilities.

Future Terminations of Private Pensions. Although the accumulated deficit of the PBGC has increased considerably over the last few years, and although some pension sponsors evidently have large levels of unfunded benefits, little basis exists on which to project future terminations of underfunded plans. Potential indicators of distress for a sponsor, such as corporate profitability and pension costs as a share of sales, indicate that the sponsors of some underfunded pensions may be more likely than others to terminate their plans, but this evidence is not conclusive. 13/ Alternatively, basing future projections on aggregate levels of past terminations requires that one either accept or reject particular large claims as "normal," and that is very difficult given the uneven history of claims against the PBGC.

13. See Alicia H. Munnell, "Guaranteeing Private Pension Benefits: A Potentially Expensive Business," *New England Economic Review* (March/April 1982).

Even if one looks beyond the plans that currently appear to have large unfunded liabilities, the future financial situation of the pension insurance program is not any clearer. The questions then become whether or not large numbers of other sponsors--or a few sponsors of large plans--will develop sufficient financial difficulties to necessitate terminating their pension plans and, if so, what will be the funding status of those plans. This question also is confounded by the fact that the economic strengths of various firms often are correlated over time because at least some of the factors affecting profitability are common to groups of them.

The Future Effects of Recent Federal Legislation. A relatively small part of the uncertainty in projecting the PBGC's future financial condition is attributable to the uncertain future effects of recent changes in federal law. Changes in the pension insurance program were made raising the annual insurance premium from $2.60 to $8.50 per participant, limiting the conditions under which sponsors can terminate underfunded pensions, increasing the maximum liability of sponsors for unfunded guaranteed benefits, and allowing the IRS to require security when granting waivers of minimum pension contributions. Only one year has passed since the enactment of these changes under SEPPAA, however, and data on terminations since then are too limited to make conclusions about the changes' long-term effects.

Raising the insurance premium probably will have a relatively straightforward impact on the program. At $8.50 per participant, the insurance premium represents less than 1 percent of annual pension costs for many sponsors, and overall participation in defined-benefit pensions probably will not decline significantly because of this cost increase. The impact on premium income will be an annual increase of nearly $200 million during the next few years.

Limiting the conditions under which sponsors may terminate underfunded pensions to liquidation, reorganization, or imminent financial distress of the sponsor could restrict plan terminations somewhat, but probably not by a large amount. According to the PBGC, most of the largest claims incurred in the past would have met the new law's distress criteria, so that these criteria would have made little difference in the financial status of the PBGC had they been enacted earlier. 14/

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14. According to the PBGC, only about 10 percent of the program's net claims between 1983 and 1985 would have been forestalled by these changes. See PBGC, "Promises At Risk" (Report and recommendations on single-employer pension plan termination insurance premiums, April 1987), p. 25.

Increasing the sponsor's liability for unfunded guaranteed benefits could increase PBGC's recoveries by a small amount. Under prior law, in which sponsors were liable for up to 30 percent of their net worth for unfunded guaranteed pension obligations, the pension insurance program recovered only about 8 cents for each dollar of the sponsor's liability. Under the new law, this fraction might increase somewhat, assuming the sponsors of terminating plans are in similar financial shape to those in earlier years.

Finally, explicitly authorizing the Secretary of the Treasury to require security as a condition for granting waivers of minimum pension contributions could reduce the number of future waiver applications and could also limit increases in underfunding of plans in years immediately preceding their terminations. These provisions only formalize powers and arrangements that existed under prior law, however.

CHAPTER V

CURRENT ISSUES AND POLICY ALTERNATIVES

The federal pension insurance program was established to promote the income security of participants in defined-benefit plans by guaranteeing the receipt of promised pension benefits. Some people believe that the program's mission could be in jeopardy, however, unless changes are made.

This chapter discusses several policy issues relating to the Pension Benefit Guaranty Corporation, and then examines three sets of options for altering the program. These options would reallocate program costs among pension plans, modify program features affecting the funding and termination of pensions, and directly improve the program's financial situation by increasing revenues or reducing outlays.

CURRENT ISSUES

The accelerated decline in the PBGC's financial position has focused concern on several issues, including whether or not the program needs corrective actions, the types of benefits that should be insured, and who should pay for the insurance protection.

Are Changes in the Pension Insurance Program Needed?

It might seem obvious that modifications would be required in a program that has amassed in just 12 years a funding deficiency of several billion dollars. This may or may not be so, however, depending on how the experience of the program is interpreted and on how its financial prospects are assessed.

The Case for Change. Some analysts see a need to alter the pension insurance program because of recent cost increases, the potential for continued financial difficulty, and the need to remove from program rules certain adverse incentives that they feel might lead to future financial problems.

The recent accumulation of unfunded pension claims has raised considerably some projections of future program costs. If future new claims are based on an average of the program's experience through 1986, for example, the annual premium would need to rise to about $25 per participant in 1988, if premiums alone were used to finance the program's shortfall. 1/ Moreover, if the last five years of program experience is thought to be more relevant and is counted more heavily in the historical experience, then an average premium of about $30 per participant could be required in 1988. 2/ Ignoring potential future claims, the existing accumulated deficit of $3.8 billion could be repaid with a one-time charge of about $120 per insured participant.

In addition to--or as justification for--projections based on historical trends, some analysts cite particular reasons for continued financial difficulties for the pension insurance agency. The degree of structural change in the economy may not lessen appreciably in future years, for example, in which case the conditions that gave rise to past terminations of underfunded pensions may continue to exist.

The "moral hazard" created by the insurance of pension benefits might also be a continuing problem. Even with the change in the insured event to insolvency of the plan's sponsor, the existence of insurance can reduce the cost to the sponsor and to participants of terminating an underfunded plan, thereby making that termination more likely than without the insurance. In particular, once a plan's sponsor is in sufficient financial difficulty, the insurance protection afforded pension benefits provides an incentive for both the sponsor and participants to use available corporate funds to try to save the firm, rather than contribute to the pension plan. This strategy could result in the termination of an underfunded plan in one of two ways. First, if the overall strategy of the sponsor fails and the business closes, the pension would be terminated. Second, if the sponsor remains in business but is close to insolvency, it might be allowed by federal law to terminate its underfunded pension, thereby eliminating a potentially large corporate li-

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1. This calculation assumes that average annual net claims against the PBGC will grow with average wages and with the number of covered participants, from a level of $425 million in 1988. It also assumes that the premium in future years will be indexed to average wages, and that the accumulated deficit of the program will be amortized over 15 years.

2. This calculation assumes that net claims grow from a level of $650 million in 1988. This quantity is determined by averaging the 12-year claims experience of the PBGC with that for the most recent 5-year period, both adjusted to 1988 dollars.

ability and allowing the sponsor to continue in operation on a more sound footing. In either case, a claim against the PBGC could be made. 3/

A final argument is that the costs of pension insurance are being paid by the wrong plans, and that the program is therefore inefficient from an economic point of view. According to this perspective, federal rules relating to the PBGC and to pension funding must be changed to reallocate the program's costs and to provide more appropriate incentives for sponsors and participants.

The Case for No Change. Analysts who advocate making little or no change in the pension insurance program support their view by noting the especially hard economic times recently experienced by firms in certain industries, the concentration of the dollar value of claims against the PBGC among a small number of plans, and the tremendous uncertainty about future claims.

The recent problems experienced by the pension insurance program can be viewed as the result of larger difficulties faced by some employers in so-called declining industries. In such cases, the PBGC might be seen as serving an appropriate and valuable function by aiding affected workers. Long-term declines experienced by some industries--which in turn are attributable to changes in consumer taste, production technologies, and the value of the dollar relative to other currencies, among other factors--have forced major changes in certain sectors of the economy and have adversely affected many workers. Support provided by the PBGC to some of the hardest-hit workers and firms can be interpreted as aid for dislocated workers--such as job training assistance and Trade Adjustment Assistance--and may be helpful in facilitating more rapid adjustment and recovery.

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3. Some analysts take this situation a bit farther, arguing that unless the program's current and future debts are reduced sufficiently, the pension insurance program one day may reach a point where all of its assets have been used to pay current benefits, and the program will run out of money. At this point, a likely course of action would be for the shortfall in the program to be made up through a combination of changes: premiums would be increased for existing plans, perhaps including a one-time added amount to inject funds into the program; benefit guarantees would be cut back, transferring some of the program's shortfall directly to the insured workers; and federal general revenue might be used to pay part of the agency's debt. The difficulty under this scenario is that many sponsors and participants would see this situation on the horizon, and--because of the voluntary nature of private pensions--would terminate their defined-benefit plans to avoid the added costs of insurance. This outcome would reduce significantly the future importance of defined-benefit plans as a vehicle for saving for retirement and would transfer more of the program's debt to the remaining pension plans--including any existing underfunded plans whose sponsors are prohibited by law from terminating them so long as the sponsor remains solvent--and eventually to federal taxpayers.

Similarly, to the extent that the PBGC's difficulties stem from the financial problems of a very few pension plans, its current difficulties may not represent a broader trend for the future. In this case, making significant changes in the pension insurance program at this time could be an overreaction: instead, action might be withheld unless it becomes clear that there is a wider trend toward terminating underfunded plans. Like the previous argument, this one treats the recent program experience as unusual and not likely to persist.

Finally, the tremendous uncertainty about future pension funding levels and the terminations of underfunded plans in itself suggests that changes might be delayed as long as possible. The pension insurance program has sufficient resources to make annuity payments to insured participants for several years, so there is no imminent need for added resources. Instead, or at least in the interim, those funds might be used more productively in the private sector.

What Types of Benefits Should be Insured?

The nature of the protection provided by the PBGC also is being questioned. One issue is whether the government should continue to insure pension benefits that have not been fully funded at least at some time in the past. This situation usually arises because certain pension costs are amortized over several years.

The basic argument for denying insurance protection for benefits that have never been funded is that insuring them goes well beyond the traditional protection provided by the government in other areas, such as in insuring bank deposits. In the case of the PBGC, insurance is provided not only against market-related fluctuations in the portfolios of pension plans--a normal aspect of insurance--but also against the inability of sponsors to provide sufficient future funding to meet their past pension promises. On the other hand, workers are unlikely to understand the fine points of pension insurance, and the government's own rules are often the source of underfunding. 4/ These facts would argue for retaining the current definition of insured benefits.

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4. Current federal rules and accepted actuarial principles allow sponsors to spread their pension costs over many years, thereby raising the likelihood that the PBGC will be called on to pay for some of these benefits.

Who Should Pay for Insurance Protection?

With recent growth in the cost of pension insurance--from $1 per participant in the original legislation in 1974 to $8.50 today--and with the prospect of considerably higher insurance premiums in the future, the issue of who should pay them becomes an increasingly important one.

The costs of pension insurance could be allocated in several ways. One way would be to continue distributing the costs equally among participants in all single-employer defined-benefit pension plans. This approach would spread program costs widely, but it would include many plans that have little likelihood of making a claim. In addition, because the insurance costs remain the same regardless of the plan's funding status, this approach provides no incentive for participants or sponsors to increase the funding of their plans.

Alternatively, insurance costs could be targeted toward plans that are more likely to make claims against the PBGC, as measured by their current financial status. This allocation would tie premium payments more closely to anticipated costs and would also provide an incentive for participants and sponsors to raise the funding levels of their plans. Better funding, in turn, might reduce the probability of insurance claims and would lower insurance premiums. But charging higher premiums to less well-funded plans could worsen their financial condition, thereby potentially making it more likely that those plans would be terminated and that claims would be made against the PBGC.

Finally, costs could be distributed more broadly, perhaps among all federal taxpayers. This method would insulate plans that continue in operation from any financial difficulties caused by plans that have terminated. It could be viewed as an inappropriate use of federal funds, however, because general taxpayers would be supporting a relatively small number of pension participants, many of whom have above-average wages.

OPTIONS FOR REALLOCATING PROGRAM COSTS

Whether or not it is appropriate to make changes to reduce the financial shortfall in the pension insurance program, the program's costs may not now be appropriately allocated among plans. The main concern is that the premium paid on behalf of each participant is the same regardless of the insurance risk posed by his or her plan.

This flat-rate premium structure may result in an inequitable distribution of costs because sponsors of, and participants in, well-funded plans are required to subsidize the pension plans of financially weak sponsors with

underfunded plans. This situation is seen as unfair because it dictates that healthy plans pay for the inefficiencies or the bad luck of other firms--in some cases, the direct competitors of firms with healthy plans. Further, the subsidy now generated by the flat-rate premium structure arguably is one factor that helps some inefficient businesses stay in operation, thus leading to the misallocation of investment capital in the economy. 4/

One response would be a variable-rate premium structure, in which the premium charged on behalf of pension participants would vary among plans according to the risk that the plan represents to the insurance program. This risk depends both on the size of the potential claim and on the probability that the claim will be made, with the former being much easier to estimate than the latter. A related view would require plans to obtain private insurance for their pension liabilities as a way to achieve fully risk-related premiums.

A variable-rate structure would provide an incentive for sponsors to raise the funding levels in their plans in order to reduce their insurance costs. It would also remove some of the subsidies inherent in the current structure, which in turn could make the economy somewhat more efficient.

On the other hand, charging potentially very high premiums for certain plans might cause their sponsors to go out of business. This result would be especially regrettable if a lower premium would have enabled the sponsor to weather its hard financial times and again become profitable. Premium assessments based on risk also would be subject to potentially large errors, because of the difficulty of predicting accurately the likelihood that particular pension plans will terminate.

Designing a Variable-Rate Premium Structure Determined by the PBGC

If a variable-rate premium structure was adopted, it would have to include a basis for assessing premiums and might also specify maximum or minimum premiums to be charged.

The Premium Base. A variable-rate structure would tie premiums to the potential financial losses that the plans represent to the insurance program. This result could be accomplished to various extents by linking the premium

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4. With premiums as low as $1.00 or $2.60 per participant, these inter-firm subsidies might be ignored, but with premiums of $20 or more this might no longer be the case. See PBGC, "Variable-Rate Premium for the Pension Benefit Guaranty Corporation's Single-Employer Insurance Program" (Discussion Paper, October 1986).

to the level of unfunded benefits in the plan that are guaranteed by the PBGC (called the "exposure" of the PBGC related to a specific plan), to the probability that the plan will terminate with a claim against the PBGC, or to both. 5/

Basing the premium on the amount of unfunded guaranteed benefits in a plan would tie it to the level of the potential claim against the PBGC. Such an exposure-based structure would provide an incentive for sponsors and participants to reduce underfunding in their plans and, over time, could link the program's revenues to the level of underfunding in covered plans. Unfunded vested benefits--that is, the present value of vested benefits less the market value of the plan's assets--has been suggested as an approximation for exposure, because it is now routinely calculated by many plans.

Basing the premium on the probability that the plan will terminate would be more difficult. The PBGC has found, for example, that while it can identify groups of plans from which terminations often later arise, these groups also include large numbers of plans that do not terminate. Thus, basing insurance premiums on the expected probability that a plan will terminate could lead to large errors for some plans, thereby penalizing some of them and undercharging others. According to the PBGC's analysis, more reliable forecasting methods are needed before basing a large portion of variable-rate premiums on these probabilities. 6/

The Maximum Premium. Any premium based on exposure or risk might also include a maximum, or cap. While any particular limit on the annual premium would be arbitrary, it could be set equal to a given fraction of average annual pension costs for all sponsors or at specific dollar limits such as $50 or $100 per participant, with the latter possibly indexed over time.

Such a cap would help ensure that the cost of the premium itself would not lead to financial difficulties for the sponsor, or to termination of the plan, but it would also limit the extent to which insurance costs would be allocated according to risk or exposure. In addition, once a plan became sufficiently underfunded so that its premium reached the cap, the sponsor would have less incentive to avoid further reductions in funding.

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5. An equal premium would continue to be charged on behalf of all participants in a given plan under proposals made to date. In particular, the premium would not be based either on the level of pension benefits accrued by each participant or on the amount of those benefits that are unfunded. The main reason for this simplification presumably is that contributions to defined-benefit plans--and returns on pension assets--are not tied to the accounts of specific participants, so that allocations of funding generally could only be done on an average per-capita basis.

6. See PBGC, "Variable-Rate Premium," Appendix I.

The Minimum Premium. A variable premium might also have a minimum rate greater than zero, which would limit the share of the program's costs that are actually variable. For example, only expected new claims might be allocated on a variable basis, with past shortfalls and administrative costs, which are independent of the current funding status of ongoing plans, being assigned equally to participants in all insured plans. In addition, having a minimum greater than zero would eliminate the difficult task of identifying plans that would pay a zero premium--namely, those that have essentially no risk of terminating with inadequate funding.

Some analysts maintain that all program costs should be subject to a variable premium, however, because all of the costs of the pension insurance program are based, either directly or indirectly, on the terminations of underfunded plans. Moreover, a fully variable premium would add to the incentive for sponsors to fund their plans.

Examples of a Variable-Rate Premium. The parameters of a variable-rate premium would depend on the required level of revenue and on the desired degree of variation in costs among plans. A simple structure, for example, might assess a premium of zero to participants in plans that are sufficiently funded on a termination basis, and increase that premium at a rate of, say, $5 for each $1,000 per participant that the plan is underfunded. 7/ In this case, a pension with 1,000 participants that was underfunded by $2 million would be underfunded by an average amount of $2,000 per participant; thus, the premium paid on behalf of each participant would be $10.

Charges assessed on the basis of underfunding would only affect a minority of plans, however. As noted in Chapter IV, for example, in 1984 an estimated 17 percent of plans with more than 100 participants--and an approximately equivalent share of participants in those plans--were in plans that were underfunded. 8/ The estimated average premium generated in the above example in 1984 would have been roughly $23 per participant in plans that paid an underfunding charge, but less than $4 per participant when averaged over all covered participants.

Some proposals would provide a "cushion" on the definition of an underfunded plan by also assessing an underfunding charge on plans that were

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7. A charge based on underfunding *per participant* is considered in these examples because the current premium is assessed on a per-participant basis. Equivalent results could be obtained by charging the entire plan a premium that would vary according to its overall funding status.

8. Recall that these calculations were made after adjusting reported liabilities to a common interest rate that approximated the one used by the PBGC in that year to value liabilities in terminated underfunded plans.

close to being underfunded. For example, plans might be assessed an underfunding charge of $5 for each $1,000 that they were less than 110 percent funded or less than 125 percent funded, on a per-participant basis. This would increase the revenue from the funding charge because it would expand the definition of underfunding and increase the share of plans that were assessed underfunding fees. Raising the threshold from 100 percent to 125 percent, for example, would have increased the shares of both plans and participants charged an underfunding fee in 1984 by about 13 percentage points. Under this scheme, the estimated average premium in 1984 would have been roughly $29 per participant in plans that paid an underfunding charge, or a little more than $8 per participant when averaged over all participants.

Maximum and minimum charges also could be added to the premium structure. An upper limit on the premium would affect only plans that otherwise would have to pay very large premiums. For example, if a maximum of $50 per participant was placed on the premium in the first example, an estimated 1 percent to 2 percent of participants would have been in plans subject to this limit in 1984. Higher maximums, of course, would affect the plans of even smaller shares of participants. A minimum charge would affect all covered participants if it were made in addition to the variable charge, and would raise the average premium by almost the full amount of that new minimum.

The revenue in future years from most variable-rate premium structures would be highly uncertain. It would depend not only on the extent of funding of pensions generally, but on the distribution of funding among plans. Flat premiums, on the other hand, would have relatively certain revenue outcomes because they depend only on the future number of covered participants--a quantity that has grown rather slowly and steadily in the past.

Require Private Insurance for Pensions

Requiring sponsors to obtain private insurance for their plans would result in premiums being assigned in the private insurance market rather than by the government. Under this system, premiums would vary among plans according to the assessments of risk made by private insurers and would result in plans paying premiums based on the expected cost of benefit payments for the insurer. Moreover, because of the nature and timing of pension commitments, private insurance contracts probably would be more similar to "whole-life" life insurance policies than to "term" life insurance, and thus might extend over many years.

The role of the federal government under this system might be limited to two functions. First, the government could provide reinsurance for private insurers. Under this arrangement, the government would help finance claims against an insurer if several large plans that it insured were terminated nearly at the same time. To pay for this protection, the government could charge a premium to the private insurers. Second, the government might also provide insurance to plans that could not obtain private insurance at "reasonable" prices. For example, the government might agree to provide insurance for any plan at $100 per participant. This feature would limit insurance costs paid by pension plans but would also leave the government with a substantial financial exposure, because the risk associated with these plans must exceed $100 per participant or else the plans would purchase private insurance.

Proponents of this alternative maintain that private insurers would calculate premiums that more accurately reflect expected insurance payments than would the government, and that this would result in fewer subsidies among plans. Opponents contend there is little experience to date in the private market for this type of insurance, however, and that relatively little is known about it. Questions remain, for example, about what the overall average increase in insurance premiums would be compared with what the PBGC would require to be self-sufficient, and about the nature of the financial arrangements that would be made.

OPTIONS FOR REDUCING UNDERFUNDING OR THE TERMINATION OF UNDERFUNDED PLANS

Insurance of private pension benefits can, by its very nature, increase the likelihood that pensions will be underfunded and that underfunded plans will be terminated. As discussed earlier, insurance protection reduces the cost of terminating an underfunded plan both to the sponsor and to the participants, thereby reducing their incentive to avoid that event. Given the goal of the pension insurance program to promote income security of covered participants, however, this moral hazard is to some extent a necessary side effect of insurance protection.

Recent changes in federal laws limit these side effects somewhat. Changing the insured event from termination of an underfunded pension to financial distress of the plan's sponsor limits the conditions under which terminations can occur. Increasing the maximum liability of the sponsor for unfunded pension benefits reduces the incentive of the sponsor to terminate its pension, especially if the sponsor anticipates continuing in business. Finally, providing the Internal Revenue Service with explicit authority to

require security on waivers of minimum pension contributions may limit underfunding in some plans operated by weak sponsors, but it could also make the termination of certain plans more likely to occur.

Nonetheless, some incentives remain to underfund pensions and to terminate those plans that are underfunded. To further limit these incentives, other changes could include:

- Increasing minimum annual pension contributions by sponsors;
- Further restricting waivers of minimum funding standards; and
- Reducing insurance protection for certain benefits derived from layoffs or plant closings.

Increase Minimum Annual Pension Contributions by Sponsors

The financial status of pension plans could be improved directly by increasing the required minimum annual pension contributions by sponsors. Changes could be made to tie pension contributions to the termination-based funding levels of the plans, or to reduce amortization periods for certain pension costs.

Require Annual Pension Contributions to Depend in Part on Termination-Based Funding. Larger pension contributions by sponsors of underfunded plans could be mandated by tying contributions directly to the termination-based level of funding in the plan or to expected pension outlays in the near future. Pension contributions are now determined by actuarial funding methods that generally distribute pension costs to current and future years based on the assumption that the plan will continue in operation.

Under these changes, sponsors also would consider explicitly the funding status of their plans as if they were to terminate today, and would more fully fund benefits that already are owed to participants. For example, sponsors of underfunded plans could be required in each year to make up a specified share of unfunded liabilities. They also might be required to tie contributions to current benefit payments and to those expected in the next few years, to ensure that the funding of the plan did not deteriorate. This approach also would link funding more closely to the maturity of the plan's work force.

These changes would not necessarily add to sponsors' total pension expenses, but would move payments forward in time. Moreover, these op-

tions could result in the explicit realization by the sponsor and by participants that their plan would not be fully funded if it were to terminate suddenly, and progress toward full funding might be enhanced once this fact was realized. On the other hand, current funding methods for pensions are based on accepted accounting and actuarial principles that are thought by many to be sound. This view is supported by the fact that only a very small share of pensions that terminate contain any unfunded liabilities.

Reduce Amortization Periods for Certain Pension Costs. Alternatively, or in conjunction with the above changes in minimum contributions, sponsors could be required to speed up the funding of certain pension costs that they are now allowed to spread over several years. For example, gains or losses based on the experience of the plan, such as those attributable to incorrect predictions of economic conditions and the behavior of workers, currently can be amortized over 15 years, and the cost of ad hoc benefit increases generally can be spread over 30 years. Faster amortization of these pension costs could raise the funding level of plans in the intervening years, and could reduce the exposure of the PBGC. It also might encourage more prudent future adjustments in benefits in some plans. On the other hand, these accelerated contributions in many cases may not be needed to pay benefits for several years. In the interim, requiring accelerated amortization might reduce the flexibility of sponsors and participants by raising required contributions.

Further Restrict Waivers of Minimum Funding Standards

Although the Internal Revenue Service now is authorized to require security on waivers of minimum funding standards, further statutory restrictions on the availability of waivers have been proposed. Suggestions include further limiting the conditions under which waivers are allowed to cases where business hardship affects the entire group of employers associated with the plan, and to cases in which the hardship is only temporary; reducing the allowable number of waivers, which is currently 5 in 15 years; and restricting the amortization period for repaying waived contributions from 15 years to a shorter period of time, perhaps determined by the plan's funding level.

Further limiting waivers could increase the funding levels in some plans, but might worsen the financial position of the sponsor and make more likely the future termination of the plan. Unfortunately, few data are available on either the dollar amounts of past waivers or on the pre- and post-waiver financial status of the sponsors who received them.

One reason to restrict waivers further is that they represent loans by potentially poorly funded plans to sponsors who are in weak financial condi-

tion--loans that might not be considered good investments. Healthy sponsors generally are not allowed to borrow from their pension plans, even though such loans might be better investments. On the other hand, recent changes allowing the IRS to require security on waivers may be adequate protection for limiting potential abuses of this feature of pension finance. If so, continuing the current waiver policy would allow sponsors in financial difficulty a chance to regain profitability, instead of prematurely terminating either their pension plans or their overall business operations.

Reduce Insurance Protection for Certain Benefits Derived from Layoffs or Plant Closings

Reducing insurance protection for extra pension benefits derived solely from layoffs or plant closings could result in less reliance on this type of benefit in future pension agreements, and might lead to reduced underfunding of some plans. 9/ According to provisions in some plans, additional benefits such as increased early retirement payments are available to workers if they are laid off or if their plant is shut down.

The cost of these added benefits can lead to financial problems both for the sponsor and for the PBGC. If the sponsor is forced by business conditions to lay off large numbers of workers, then the added liability for these benefits can, in itself, lead to financial difficulties. Although sizable portions of these benefits are not insured, they also can lead to higher claims against the PBGC, either because a portion of them is insured or because they are paid to participants--in lump sums, for example--before the plan is terminated, thereby reducing the funds that remain later to pay benefits that are guaranteed. The PBGC estimates that in the steel industry alone, roughly $1 billion in unfunded claims have resulted from this type of benefit, although few other data exist on the inclusion of these benefits in pension agreements.

Removing insurance protection for these benefits might place the sponsor, the plan, and the PBGC at less risk if the sponsor needed to react to changes in business conditions. In addition, if these benefits remained available but were not insured, participants might be less willing to accept the termination of their pension plan as a consequence of the sponsor's financial difficulties.

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9. Instead, the payment of these benefits could be made conditional on funds being available, perhaps in a separate account that would not be used to meet minimum funding standards. Alternatively, separate insurance could be provided for these benefits.

On the other hand, this option might lower the income security of workers who lose their jobs, which in turn might make them less willing to accept economic change, thereby potentially reducing the adaptability of the economy. Moreover, changing this aspect of pension policy might be premature because funding problems resulting from this provision have yet to be documented.

OPTIONS FOR RAISING PROGRAM REVENUE OR REDUCING OUTLAYS

Several features that directly improve the program's financial status also could be changed. Options include raising the insurance premium charged on behalf of insured participants, increasing receipts from other sources, and reducing outlays for benefits by making either across-the-board or other, more selective reductions in benefit guarantees.

Increase the Insurance Premium

Program revenue could be increased directly by raising the insurance premium charged on behalf of participants. This could be done by increasing that premium by a certain amount or by indexing it to changes in a relevant indicator. 10/ A one-time increase in the premium could result in a larger immediate rise in program revenue--and in insurance costs for sponsors--than would instituting an indexed premium that generated the same revenue during a given time period. The desired increase in revenue would depend on how quickly the accumulated program deficit was to be repaid, and on expected future claims.

Raising revenue by increasing the premium would help to restore solvency to the program by using the mechanism originally designed to provide program funds. On the other hand, large increases in premiums could discourage the future use of defined-benefit pensions, with a possible reduction in the income security of affected workers.

Increase the Premium by a Certain Amount. A one-time increase in the premium could be achieved either by raising the current flat-rate premium or by charging a premium with variable rates, the average of which matched the higher flat rate. Raising the flat-rate premium would affect all covered

10. Federal law requires a concurrent resolution of both Houses of the Congress to change the insurance premium, although changes to date have been made through legislation passed by the Congress and signed by the President.

sponsors, while charging a premium that varied according to the funding status of the plan might affect only a minority of them. In either case, each $1 increase in the average premium in 1988 would generate just over $30 million in revenue in that year.

Index the Premium. In addition, or as an alternative, to a jump in the premium, the premium could be indexed to future values of an indicator such as the Social Security wage base. 11/ This method of indexation currently is used to adjust the upper limit on guaranteed pension benefits and could be applied to the premium as well. Indexing the premium to wages would ensure that its value relative to a major determinant of pension amounts remained constant over time, but receipts would not fluctuate with the financial needs of the PBGC.

Alternatively, the premium could be tied directly to the level of claims against the PBGC. For example, the average premium in a given year could be related to claims against the PBGC during the preceding one-year or five-year period. This structure would allow for automatic adjustments in revenue in response to changes in the needs of the program, although it could result in very high premiums if the financial condition of the PBGC were to worsen further. 12/

Increase Other Program Receipts

Revenue also could be increased by imposing a one-time charge on behalf of pension participants, raising the priority of PBGC's claim on the assets of sponsors of terminated underfunded plans in bankruptcy proceedings, or using federal general revenue to pay part of the debts of the PBGC.

Impose a One-Time Charge on Pension Participants. In addition to increasing the insurance premium, revenue also could be raised from sponsors by imposing a one-time charge on behalf of participants. This could be done, for example, by assessing for all current participants a fee based on the per-capita amount of the accumulated program deficit, or by assessing a one-time charge only for participants who leave the pension system or who are in plans that terminate. As noted earlier, a charge of about $120 for each current participant would be sufficient to fund the accumulated program deficit of $3.8 billion. Larger charges would be needed if they were only paid by some sponsors.

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11. Changes in the Social Security wage base are determined annually by changes in the level of wages of covered workers.

12. See PBGC, "Variable-Rate Premium," Appendix III.

Assessing charges only for participants who leave the system, or only for those who are in plans that terminate, would reduce the short-term impact of this option on revenue. Imposing a charge on behalf of all participants who leave the insurance system eventually would yield revenue equal to and then in excess of that generated by a one-time charge on behalf of all current participants. Restricting the charge to sponsors of plans that terminate would generate a smaller amount of revenue than either of the other two options if the per-participant fees were the same, but would not raise pension costs for participants in plans that continued in operation.

Imposing a one-time charge on behalf of covered participants would continue to rely on insured plans as the source of program funding. On the other hand, concentrating this charge in one payment could be a financial burden for some sponsors, especially if it were assessed on behalf of all covered participants.

Raise the Level of the PBGC's Claim in Bankruptcy Court. The ability of the PBGC to recover assets from sponsors of terminated underfunded plans could be enhanced if the priority of the agency's claim in bankruptcy court were raised. The part of the PBGC's claim that does not exceed 30 percent of the sponsor's net worth currently has the priority status of a federal tax lien. The remainder of the claim normally has unsecured general creditor status and is subject to mandatory extended payment terms. Recoveries on employer liability claims, including claims for unpaid contributions, have averaged about eight cents on the dollar, according to the PBGC.

A sponsor's pension obligations might be given higher priority in bankruptcy settlements if workers have accepted lower cash wages in the past in return for these promises. On the other hand, any additional assets recovered by the PBGC would come at the expense of other creditors, thereby shifting the pension cost to parties that were not involved in promising to pay them.

Use Federal General Revenue to Fund the PBGC's Debts. Federal general revenue also could be made available to fund part of the claims against the pension insurance agency. Under current law, the PBGC can borrow up to $100 million from the federal Treasury but, beyond that commitment, the federal government is not directly involved in paying program costs. As mentioned earlier, some of the aid provided by the PBGC is similar to federal spending to help dislocated workers and, to that extent, might be a candidate for using federal general funds. On the other hand, because pensions are voluntary and affect only a relatively small share of the population, direct federal involvement would mean that general taxpayers were subsidizing voluntary private-sector projects. Instead, the program's costs might be paid by those who benefit from the insurance protection.

Reduce Outlays for Benefits

Reducing benefits for new claimants also would improve the financial situation of the PBGC. Outlays could be reduced by lowering insurance protection across the board, by lowering the maximum benefit guarantee, or by restricting insurance coverage for particular kinds of benefits.

Reduce the Level of Insurance Protection. Insurance protection could be reduced in an across-the-board fashion by lowering future guarantees to some fraction of their current level, such as to 85 percent of the current guarantee. This change would proportionally reduce benefit payments to all future recipients and could limit future outlays significantly. Using past claims as an indicator of future ones, for example, reducing the present guarantee rate on benefits from 100 percent to 85 percent might lower the present value of future insurance claims by roughly $50 million to $100 million annually. On the other hand, this option could be seen as abandoning a previous promise made by the federal government. It also could reduce benefits received in future years by some relatively poor retirees for whom such a change could mean a significant reduction in their standard of living.

Lower Maximum Benefit Guarantees. Alternatively, outlays for benefits could be reduced by lowering the upper limit on monthly benefits guaranteed by the PBGC. The cap of $1,858 per month in 1987, or about $22,300 annually, presumably affects only a small share of beneficiaries, although data are not available on the impact of this limitation.

This change would only affect beneficiaries with the highest levels of income, thereby avoiding a major disadvantage of an across-the-board cut. In addition, this cap relates only to pension benefits and does not include Social Security or other sources of retirement income. On the other hand, because the cap is in nominal dollars and affects all future benefit payments for plans terminating in 1987, the real value of the limit actually is much lower. While pension income of $22,300 may seem sizable today, the purchasing power of that income level will be much smaller in future years when many of the benefits actually will be paid.

Restrict Insurance Coverage. Program outlays also could be reduced by more selectively restricting insurance coverage. An example of this change was given earlier, involving benefits accruing solely because workers were laid off or their plants shut down. Other restrictions in coverage might also be considered if certain types of benefits were found to be important sources of underfunding and were concentrated in plans that terminated with claims against the PBGC. An advantage of this approach is that it might be used to influence the future availability of certain types of pension benefits, thereby achieving other federal policy objectives. On the other hand, reducing outlays in this manner could result in relatively large reductions in benefits for some workers, while leaving many others unaffected.

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